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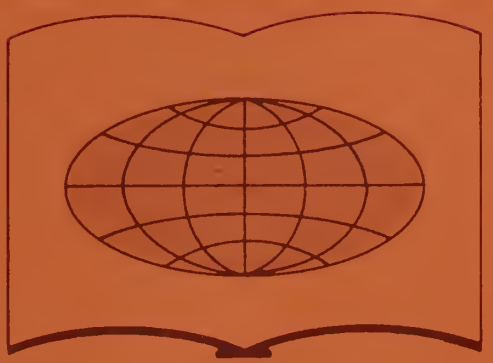

Volume 4 Number 25
December 6, 1968

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# PESTICIDES DOCUMENTATION BULLETIN

Volume 4
December 6, 1968
Number 25

A Bi-Weekly Publication of U.S. Department of Agriculture


## OBJECTIVES AND SCOPE

The *Pesticides Documentation Bulletin* is compiled by the National Agricultural Library's Pesticides Information Center to facilitate national research efforts in all aspects of pest control. This bi-weekly index to the literature includes coverage of diseases, insects, nematodes, parasites, weeds and other pests affecting plants, animals, man, our natural resources and other values in man's environment. Special emphasis is given to the literature on toxicological, physiological and epidemiological aspects of pests and their control by chemical biological and integrated methods.

For broader coverage of literature on agriculture and related subjects, please consult the *Bibliography of Agriculture*, a monthly publication of the National Agricultural Library.

## FORMAT

The *Bulletin* is a categorized bibliography, with citations arranged alphabetically by author under the following major subjects:

10 Entomology
20 Crop Protection
30 Livestock Protection
40 Commodity Protection
50 Environmental Contamination
55 Residues
60 Toxicology
65 Plant Physiology & Biochemistry
70 Chemistry
80 Engineering
90 Industry

*Citations:* Each citation consists of an accession number assigned serially with the last two digits representing the Bulletin's issue year, i.e. 3286-67. The citation number (minus the year) is used in all indices. Following the accession number is the full title of the article; all personal authors; an abbreviated journal title; volume, issue and inclusive page numbers; date of publication; language abbreviation, if other than English; and the National Agricultural Library's call number. Subject descriptors, patent or grant numbers, bibliographer's notes, and abstracts or extracts may follow each citation when appropriate.

*Subject Index:* Subject descriptors appear in the index followed by title arranged numerically by accession number. The Agricultural/Biological Vocabulary developed by the National Agricultural Library is used as a basic thesaurus of descriptors.

*Biographical Index:* Names of first authors are arranged alphabetically, followed by organizational affiliation and accession number.

*Author Index:* Names of personal authors are arranged alphabetically, followed by accession numbers of pertinent citations.

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In addition to the citations contained in the Bulletin, the Pesticides Information Center maintains two other files, the INTREDIS Register and the Herbicides Data File.

The INTREDIS Register is a computer data bank in the field of forest pathology. It contains title and author references to abstracted articles including subject, country, host plant genus or species, organisms causing the diseases, abstracting journal and year of publication. The computer search uses boolean parameters in any combination of elements listed.

The Herbicides Data File consists of reports on field tests conducted by the Crops Protection Research Branch, Crop Research Division, Agriculture Research Service. Each test record contains the following items of information:

Compound Tested
Company furnishing the compound
Author or Investigator
Test Sponsor
Date
Location
Mode of Application
Rates of Application
Soil Types
Carriers
Crops or Weeds tested with phytotoxicity ratings
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## ACKNOWLEDGMENT

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Use of funds for printing this publication approved by the Director of the Bureau of the Budget (May 23, 1968).


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This publication reports research involving pesticides. It does not contain recommendations for their use, nor does it imply that the uses discussed here have been registered. All uses of pesticides must be registered by appropriate State and/or Federal agencies before they can be recommended.

CAUTION: Pesticides can be injurious to humans, domestic animals, desirable plants, and fish or other wildlife—if they are not handled or applied properly. Use all pesticides selectively and carefully. Follow recommended practices for the disposal of surplus pesticides and pesticide containers.


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**INSECTS AND MITES ON TEA IN AFRICA AND ADJACENT ISLANDS.**
D M Benjamin
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C J Rogers T H Lauret
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Insect control, Insect traps, Population, Sampling (statistics), Vespidae.

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V Cerny
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P J Chandler
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*Coleopt Bull 22(1):1-10 MAP*
Mar 1968 421 C674
Catalogs, Insect behavior, Insect taxonomy, Lampyridae, Sex behavior, Surveys, Zoogeography.

22301-68
THE PRAIRIE PENINSULA AND SECONDARY INTERGRADATION IN PHOTINUS FIREFLIES (COLEOPTERA: LAMPYRIDAE).
J E Lloyd
*Coleopt Bull 21(2):33-39*
Jun 1967 421 C674
Geography, Insect identification, Lampyridae, Photinus, Research.

22302-68
INSECT CATALOGS OF SWEDEN. XVIII. COLEOPTERA, 1960. (NO )
S Lundberg
*Opusc Entomol 33(1-2):197-218*
1968 421 OP7
Catalogs, Coleoptera, Insect taxonomy, Sweden.

22303-68
A NEW EUROPEAN SPECIES OF LYSIPHLEBUS (HYM. APHIDIDAE). (GE )
M Mackauer
*Deut Entomol Ges Mitt 21(1):12-13*
15 Feb 1962 420 D482
Aphididae, Hymenoptera, Taxonomy, Zoogeography.

22304-68
AUSTRALIAN BLATTIDAE (BLATTODEA). VIII. THE PLATYZOSTERIA GROUP; SUBGENUS MELANOZOSTERIA STAL.
M J Mackerras
*Australian J Zool 16(2):237-331 MAP*
May 1968 410 AU73
Blattidae, Catalogs, Insect taxonomy, Zoogeography.

22305-68
REVISION OF THE CERATOZETIDAE. 5. CERATOZETES THIENEMANNI WILLMANN (ARACH., ACARI, ORIBATEI). (GE )
H-G Menke
*Senckenb Biol 48(5-6):415-419*
22 Dec 1967 410.9 SE5
Acarina, Insect taxonomy.

22306-68
ENTOMOLOGY AND ENTOMOLOGISTS.
H A U Monro
*Entomol Soc Ontario Proc 97:11-13*
1966 420 ON8
Entomologists, Entomology, Insect control, Research, Teaching.

22307-68
THYSANURA IN CAERNARVONSHIRE.
M J Mrs Morgan
*Entomologist (london) 101(1259):73-75*
Apr 1968 421 EN8
Catalogs, Insect taxonomy, Thysanura.

22308-68
TROGODERMA ANGUSTUM SOL. IN GERMANY (COL.,DERMESTIDAE). (GE )
M Mroczkowski
*Deut Entomol Ges Mitt 19(6):95-96 REF*
15 Dec 1960 420 D482
Coleoptera, Trogoderma angustum, Zoogeography.

22309-68
SUPPLEMENTARY INFORMATION ON THE APHIDIDAE FAUNA OF CENTRAL EUROPE. (GE )
F P Mueller
*Deut Entomol Ges Mitt 20(5-6):69-70*
15 Nov 1961 420 D482
Aphididae, Research, Zoogeography.

22310-68
CONCERNING THE INFLUENCE OF VARIOUS LIGHT COLORS AND THE DIFFERENT POPULATION DENSITIES ON THE LIFESPAN AND EGG PRODUCTION OF THE CARROT FLY, PSILA ROSEA FABR.
E Naton
*Anz Schadlingskunde 41(8):113-116*
Aug 1968 421 AN9
Eggs, Fluoreseent lamps, Insect cages, Longevity, Morphology, Psila rosae, Research. English summary

22311-68
NOTES ON BUPRESTIDAE (COLEOPTERA): PART VI.
G H Nelson
*Coleopt Bull 22(1):28-30*
Mar 1968 421 C674
Buprestidae, Catalogs, Insect taxonomy, Zoogeography.

22312-68
ABYSSAL HALACARIDAE (ACARI) FROM THE SOUTHEAST PACIFIC.
I M Newell
*Pacific Insects 9(4):693-708*
20 Nov 1967 421 P11
Acarina, Ecology, Insect taxonomy, Surveys.

22313-68
NOTES ON CECIDOMYIDAE, I.
W Nijveldt
*Entomol Ber 27(1):8-14 REF*
01 Jan 1967 420 N38B
Catalogs, Ceeidomyiidae, Insect taxonomy.

22314-68
A REVISION OF THE GENUS MICROGASTER LATREILLE (HYMENOPTERA: BRACONIDAE).
G E J Nixon
*Brit Mus (natur Hist) Entomol Bull Suppl 22(2):33-72 REF*
1968 420 B773
Braconidae, Insect taxonomy, Zoogeography.

22315-68
ON THE TAXONOMY AND DISTRIBUTION OF THE EUROPEAN AND MIDDLE-EAST SPECIES OF THE TABANUS BOVINUS-GROUP (DIPTERA, TABANIDAE). (GE )
N G Olsufjev J Moucha M Chvala
*Acta Ent Bohemoslov 64(4):303-313*
20 Jul 1967 420 C33
Insect taxonomy, Tabanus, Zoogeography. Russian English and Czech abstracts

22316-68
PREVENTION, SURVEILLANCE AND MANAGEMENT OF INVADING PEST INSECTS.
P Oman
*Entomol Soc Amer Bull 14(2):98-102*
Jun 1968 423.9 EN8
Insects, Management, Pest control.

22317-68
COMPARISON OF THREE METHODS OF EXTRACTING THE FLOWER THRIPS FROM ROSE FLOWERS.
A K Ota
*J Econ Entomol 61(6):1754-1755*
16 Dec 1968 421 J822
Filters, Frankliniella tritiei, Insect collecting equipment, Microscopy, Rosa, Thripidae.

22318-68
A REVIEW OF THE TRIBE RUTILIINI (DIPTERA: TACHINIDAE) I. GENERA OTHER THAN RUTILIA ROBINEAU-DESVOIDY AND FORMOSIA GUERIN-MENEVILLE.
J Paramonov
*Australian J Zool 16(2):349-404 REF*
May 1968 410 AU73
Catalogs, Insect taxonomy, Tachinidae, Zoogeography.

22319-68
TAGGING APHIDS.
J Pettersson
*Opusc Entomol 33(1-2):219-229 REF*
1968 421 OP7
Aphididae, Labeling, Methodology, Myzus persicae.

22320-68
GENERA AND SPECIES OF THE DERMAPTERA. 5. SPONGIPHORINAE AND LABIINAE.
E J Popham A Brindle
*Entomologist (london) 100(1253):255-262*
Oct 1967 421 EN8
Catalogs, Dermaptera, Insect taxonomy, Zoogeography.

22321-68
GENERA AND SPECIES OF THE DERMAPTERA. 4. PERICOMINAE, VANDICINAE, STRONGYLOPSALINAE, NESOGASTRINAE, ISOPYGINAE AND SPARATTINAE (LABIIDAE).
E J Popham A Brindle
*Entomologist (london) 100(1245):35-38*
Feb 1967 421 EN8
Catalogs, Dermaptera, Insect taxonomy, Zoogeography.

22322-68
HETERONYCHIA (SPATULAPICA) SLOVACA SP. N. AND NOTES ON THE TAXONOMY OF HETERONCHIA (SPATULAPICA) RODENDORFI (POVOLNY AND SLAMECKOVA, 1959) (DIPTERA). (GE )
D Povolny M Slameckova
*Acta Ent Bohemoslov 64(4):314-318*
20 Jul 1967 420 C33
Catalogs, Diptera, Insect taxonomy, Zoogeography. English and Czech abstracts

22323-68
AN INDEX-CATALOGUE OF AFRICAN PHANEROPTERINAE (ORTHOPTERA: TETTIGONIIDAE).
D R Ragge

*Brit Mus (natur Hist) Entomol Bull Suppl 22(3):75-108 REF*
1968 420 B773
Catalogs, Insect taxonomy, Tettigoniidae.

**22324-68**
**NEW NEARCTIC AND NEOTROPICAL MUSCOIDEAN DIPTERA (SARCOPHAGIDAE AND TACHINIDAE).**
H J Reinhard
*Kans Entomol Soc J 40(1):94-110*
Jan 1967 420 K13
Anatomy, Color, Cuticle, Diptera, Insect identification, Insect names, Research.

**22325-68**
**ON THE OCCURRENCE OF FOSSIL INSECTS IN THE MESOZOIC ROCKS OF WESTERN AUSTRALIA.**
E F Riek
*Aust Mus Rec 27(16):311-312*
28 Nov 1968 514 AU7
Blattidae, Coleoptera, Insect taxonomy, Paleoentomology.

**22326-68**
**TWO NEW AND ECONOMICALLY SIGNIFICANT CHLOROPIDAE, WITH THE DESCRIPTION OF A NEW GENUS (DIPTERA).**
C W Sabrosky
*Kans Entomol Soc J 40(2):151-156*
Apr 1967 420 K13
Chloropidae, Insect identification, Research, Taxonomy.

**22327-68**
**NEW NASAL MITES PTILONYSSUS AND PARANEONYSSUS (ACARINA: MESOSTIGMATA), FROM TAIWAN AND NEW GUINEA.**
I Sakakibara
*Pacific Insects 9(4):597-601*
20 Nov 1967 421 P11
Insect taxonomy, Mesostigmata.

**22328-68**
**THE TYPES AND TAXONOMY OF THE NATURE-MUSEUM SECKENBERG 38: INSECTA LEPIDOPTERA HEPIALIDAE. (GE )**
H Schroder
*Senckenb Biol 48(5-6):337-344*
22 Dec 1967 410.9 SE5
Catalogs, Hepialidae, Insect taxonomy, Zoogeography.

**22329-68**
**BIOLOGICAL OBSERVATIONS ON SOME SANDFLIES (PHLEBOTOMUS) OF RANCHO GRANDE (VENEZUELA). I. DESCRIPTION OF A LIMITED AREA OF A CLOUDY FOREST AND THE TAXONOMY OF THE PHLEBOTOMUS (DIPTERA, PSYCHODIDAE). (SP )**
J V Scorza I Ortiz M Ramirez
*Acta Biol Venezuelica 5(11):179-200 MAP REF*
08 Aug 1967 475 AC86
Insect ecology, Insect taxonomy, Phlebotomus. English abstract.

**22330-68**
**EURYCOLPUS ENSLINI N. SP., A NEW SPECIES OF PHYLINI DGL. SC. FROM SOUTHERN TURKEY (HETEROPTERA MIRIDAE). (GE )**
G Seidenstucker
*Deut Entomol Ges Mitt 18(5):74-76*
15 Oct 1959 420 D482
Heteroptera, Miridae, Taxonomy, Zoogeography.

**22331-68**
**THE TAXONOMY AND BIOLOGY OF TWO SYMPATRIC SIBLING SPECIES OF CULEX, C. PIPIENS AND C. TORRENTIUM (DIPTERA, CULICIDAE).**
M W Service
*J Zool 156(PT 3):313-323 REF*
Nov 1968 410.9 L84P
Culex, Culex pipiens, Insect biology, Insect taxonomy, Zoogeography.

**22332-68**
**INVESTIGATIONS CONCERNING GALL GNATS. VI. THE JUSTIFICATION OF THE GENUS NOURYODIPLOSIS TAVARES 1929. (GE )**
H Stelter
*Deut Entomol Ges Mitt 20(5-6):70-73*
15 Nov 1961 420 D482
Cecidomyiidae, Insect identification, Research, Taxonomy.

**22333-68**
**CHIROTHRIPS TUTTLEI N. SP. AN ISOLATED FRINGE-WINGED INSECT FROM ARIZONA, U. S. A. (INS., THYSANOPTERA, THRIPIDAE). (GE )**
R Z Strassen
*Senckenb Biol 48(5-6):345-355*
22 Dec 1967 410.9 SE5
Insect taxonomy, Thripidae.

**22334-68**
**THE WOOD CRICKET, NEMOBIUS SILVESTRIS (BOSC), (ORTHOPTERA, GRYLLIDAE) IN SURREY.**
A E Stubbs
*Entomologist (london) 100(1254):284*
Nov 1967 421 EN8
Gryllidae, Insect taxonomy.

**22335-68**
**LIPOKOPHILA CHINAI GEN. N., SP. N.- A NEW GENUS OF PLOKIOPHILIDAE (HETEROPTERA) FROM BRAZIL.**
P Stys
*Acta Ent Bohemoslov 64(4):248-258*
20 Jul 1967 420 C33
Catalogs, Heteroptera, Insect taxonomy.

**22336-68**
**AMPHIPYRA PYRAMIDEA L. A DOUBLE SPECIES (LEP., AGROLIDAE). (NO )**
I Svensson
*Opusc Entomol 33(1-2):183-188*
1968 421 OP7
Insect ecology, Insect taxonomy, Lepidoptera. English abstract

**22337-68**
**THE DIPTEROUS GENUS DIOSTRACUS LOEW (DOLICHOPODIDAE).**
S Takagi
*Insecta Matsumurana 31(PT 5):35-62*
Dec 1968 421 IN77
Catalogs, Dolichopodidae, Insect ecology, Insect taxonomy, Zoogeography.

**22338-68**
**NOTES ON THE INDO-AUSTRALIAN BASICEROTINE ANTS (HYMENOPTERA: FORMICIDAE).**
R W Taylor
*Australian J Zool 16(2):333-348*
May 1968 410 AU73
Catalogs, Formicidae, Insect taxonomy, Zoogeography.

**22339-68**
**NOTES ON THE SCANDINAVIAN PTYCHOPTERIDAE, WITH DESCRIPTION OF A NEW SPECIES (DIPTERA).**
B Tjeder
*Opusc Entomol 33(1-2):73-79 MAP REF*
1968 421 OP7
Diptera, Insect ecology, Insect taxonomy, Zoogeography.

**22340-68**
**A REVIEW OF NORTH AMERICAN ARDEICOLA (MALLOPHAGA: PHILOPTERIDAE).**
D W Tuff
*Kans Entomol Soc J 40(2):241-263 REF*
Apr 1967 420 K13
Ardeicola, Insect behavior, Insect dissemination, Insect identification, Research, Taxonomy.

**22341-68**
**A NEW CONTRIBUTION TO THE TAXONOMY OF THE GENUS STHENARUS FIEBER AND PSALLUS FIEBER(HEM. HET. MIRIDAE). (GE )**
E Wagner
*Deut Entomol Ges Mitt 19(1):9-13*
15 Feb 1960 420 D482
Hemiptera, Heteroptera, Insect identification, Miridae, Psallus, Taxonomy.

**22342-68**
**NOTES ON THE GENERA COSMOPHORUS AND ORGILUS IN JAPAN WITH DESCRIPTION OF A NEW SPECIES (HYMENOPTERA, BRACONIDAE).**
C Watanabe
*Insecta Matsumurana 31(PT. 1-2):1-6*
Sep 1968 421 IN77
Braconidae, Catalogs, Insect taxonomy, Surveys, Zoogeography.

**22343-68**
**SOME SWEDISH HYDROPORUS SPECIES (COL., DYTISCIDAE) WITH DESCRIPTIONS OF HYDROPORUS ELJASI N. SP. . (no )**
E Wiren
*Opusc Entomol 33(1-2):114-118*
1968 421 OP7
Dytiscidae, Insect ecology, Insect taxonomy.

**22344-68**
**NEW RECORDS OF TWO CURCULIONID BEETLES IN NORTH CAROLINA.**
D L Wray
*Entomol News (philadelphia) 78(9):226*
Nov 1967 421 EN88
Gymnetron antirrhini, Hylobius, Research, Taxonomy.

**22345-68**
**NOTES ON THE NAME LEPTOPIINAE (COLEOPTERA: CURCULIONIDAE).**
E C Zimmerman
*Coleopt Bull 22(1):16-17*
Mar 1968 421 C674
Catalogs, Curculionidae, Insect taxonomy.

## PHYSIOLOGY AND BIOCHEMISTRY

**22346-68**
**HEMOLYMPH PROTEINS AND REPRODUCTION IN PERIPLANETA AMERICANA: THE NATURE OF CONJUGATED PROTEINS AND THE EFFECT OF CARDIAC-ALLATECTOMY ON PROTEIN METABOLISM.**
K G Adiyodi K K Nayar
*Biol Bull 133(2):271-286 REF*
Oct 1967 442.8 B52
Biochemistry, Hemoproteins, Insect metabolism, Periplaneta americana.

**22347-68**
**SEXUAL RESPONSES OF ADULT MALE AEDES AEGYPTI USING THE FORCED-COPULATION TECHNIQUE.**
D H Akey J C Jones
*Biol Bull 135(3):445-453 REF*
Dec 1968 442.8 B52
Aedes aegypti, Insect behavior, Sex behavior.

**22348-68**
**THE MORPHOLOGICAL BASIS OF EMBRYONIC MOVEMENTS IN THE LIGHT BROWN APPLE MOTH, EPIPHYAS POSTVITTANA (WALK.) (LEPIDOPTERA: TORTRICIDAE).**
D T Anderson E C Wood
*Australian J Zool 16(5):763-793 REF*
Nov 1968 410 AU73
Embryology, Insect morphology, Insect physiology, Tortricidae.

**22349-68**
**TECHNICAL NOTES ON HARMFUL INSECTS FROM MALAGASY. (FR )**

J Appert
*Agron Trop 22(5):504-552*
May 1967 26 AG86
Heteroptera, Insect pests, Insect taxonomy.

**22350-68**
**SUN ORIENTATION DURING MIGRATION IN SOME BRITISH BUTTERFLIES.**
R R Baker
*Roy Entomol Soc London Proc Ser A Gen Entomol 43(7/9):89-95*
31 Oct 1968 420 L84PA
Butterflies, Insect dissemination, Insect ecology, Insect flight, Insect migration. Species dealt with were: Picris brassicae, P. napi, Maniola jurtina, Aglais urticae, Inachis, Vanessa atalanta, and V. cardui.

**22351-68**
**ELECTROMICROSCOPIC EXPERIMENTAL STUDY AND OBSERVATIONS OF THE DEPOSITION OF THE ENDO AND EXOCUTICLES IN THE LARVAE OF GALLERIA MELLONELLA L. (LEPIDOPTERA PYRALIDAE). (FR )**
R Barbier
*Acad Sci Compt Rend Ser D Sci Nat 266(15, 1ST SEMESTER):1613-1615*
08 Apr 1968 505 P21
Cuticle, Electron microscopy, Galleria mellonella.

**22352-68**
**NOTES ON THE BIOLOGY OF THE PARASITIC MITE PYEMOTES SCOLYTI OUD. (ACARI: PYEMOTIDAE).**
R A Beaver
*Entomologist (london) 100(1244):9-10*
Jan 1967 421 EN8
Acarina, Habitats, Insect behavior, Insect ecology, Life cycle, Scolytus, Sex behavior.

**22353-68**
**HYMENOPTERAN PARASITES OF LONCHAEA FUGAX BECKER (DIPTERA: LONCHAEIDAE).**
R A Beaver
*Entomologist (london) 100(1255):304-306*
Dec 1967 421 EN8
Diptera, Hymenoptera, Parasitism, Pteromalidae.

**22354-68**
**THE DISTRIBUTION PATTERN OF INDIRECT FLIGHT MUSCLE FIBRES IN AEDES AEGYPTI (L.) (DIPTERA: CULICIDAE).**
E B Beckett W W Macdonald
*Roy Entomol Soc London Proc Ser A Gen Entomol 43(7/9):135-139*
31 Oct 1968 420 L84PA
Aedes aegypti, Fibers, Insect anatomy, Insect dissemination, Insect flight, Muscles, Research.

**22355-68**
**OCCURRENCE OF GIANT MUSCLE FIBERS IN THE FLIGHT MUSCLE OF PANTALA FLAVESCENS (F.) (LIBELLULIDAE: ODONATA).**
U K M Bhat
*Cur Sci 37(7):207-208*
05 Apr 1968 475 SCI23
Insect morphology, Muscles, Odonata.

**22356-68**
**DEMOGRAPHY OF THE DAMSELFLY, ARGIA PLANA CALVERT (ODONATA COENAGRIIDAE).**
G H Bick J C Bick
*Entomol Soc Wash Proc 70(3):197-203*
Sep 1968 420 W27
Demography, Insect behavior, Odonata, Reproduction.

**22357-68**
**N-METHYL 3-METHYL-5-ETHYL PHENYL CARBAMATE AS AN INSECTICIDE PATENT 3,422,198.**
P J Brooker J Gillon G T Newbold D T Saggers
*Us Patent Office Offic Gaz 858(2):604*
14 Jan 1969 156.65 OF2
Carbamates, Chemistry, Ethyl-3-methylphenyl N-methylcarbamate, 5-, Insect control, Insecticides, Patents.

**22358-68**
**INFLUENCE OF TEMPERATURE ON THE FECONDITY OF ASAPHES VULGARIS WALKER (HYMENOPTERA, PTEROMALIDAE). ( FR )**
G Broussal
*Acad Sci Compt Rend Ser D Sci Nat 266(15, 1ST SEMESTER):1586-1588*
08 Apr 1968 505 P21
Fertility, Insect physiology, Insect temperature, Pteromalidae.

**22359-68**
**THE ANTENNAL ORIGIN OF THE NEURO-ENDOCRINE REFLEXES OF THE DICTYOPTERA BLABERIDAE AND BLATTIDAE. (FR )**
P Brousse-Gaury
*Acad Sci Compt Rend Ser D Sci Nat 267(16, 2ND SEMESTER):1312-1314 REF*
14 Oct 1968 505 P21
Antennae, Blattidae, Insect morphology, Nervous system, Reflexes.

**22360-68**
**LOCALIZATION OF THE NUCLEAR ORIGIN IN THE PARACARDIAC NERVES OF DICTYOPTERA BLABERIDAE AND BLATTIDAE. (FR )**
P Brousse-Gaury
*Acad Sci Compt Rend Ser D Sci Nat 266(19, 1ST SEMESTER):1972-1975*
06 May 1968 505 P21
Blattidae, Insect morphology, Nervous system.

**22361-68**
**DESCRIPTION OF THE NEURO-ENDOCRINE REFLEX ARCS BEHIND THE OCELLI IN THE DICTYOPTERAN MANTIDAE. (FR )**
P Brousse-Gaury
*Acad Sci Compt Rend Ser D Sci Nat 267(18, 2ND SEMESTER):1468-1470*
28 Oct 1968 505 P21
Insect morphology, Mantidae, Nervous system.

**22362-68**
**ANTIFEEDING EFFECT OF DDT ON BOLLWORM AND TOBACCO BUDWORM LARVAE.**
H R Bullock D A Wolfenbarger
*J Econ Entomol 61(6):1760-1761*
16 Dec 1968 421 J822
Acetone, Biological assay, DDT, Emulsifying agents, Feeding, Heliothis virescens, Heliothis zea, Insect behavior, Larvae, Toxaphene. DDT and toxaphene tested separately and together.

**22363-68**
**DEVELOPMENTS IN PEST CONTROL. I. THE PRESENT STATUS OF RESISTANCE. II. THE FUTURE OF PEST CONTROL.**
J R Busvine
*Pans (pest Articles News Sum) Sect A Insect Contr 14(3):310-328 REF*
Aug 1968 423.92 G798
Insect pests, Insecticide resistant insects, Pest control, Physiology.

**22364-68**
**THE REGULATION OF CYCLIC REPRODUCTIVE AND FEEDING ACTIVITY IN THE MILKWEED BUG ONCOPELTUS BY TEMPERATURE AND PHOTOPERIOD.**
R L Caldwell H Dingle
*Biol Bull 133(3):510-525 REF*
Dec 1967 442.8 B52
Food habits, Insect behavior, Oncopeltus fasciatus, Photoperiodism, Reproduction, Temperature.

**22365-68**
**FIELD STUDIES OF INSECTICIDES FOR CONTROL OF THE COFFEE LEAF MINER, LEUCOPTERA COFFEELLA.**
J M Campbell J G Rodriguez K G Eveleens
*Pans (pest Articles News Sum) Sect A Insect Contr 14(3):376-385*
Aug 1968 423.92 G798
Coffee, Insect control, Insecticides, Leucoptera coffeella, Research.

**22366-68**
**CONTRIBUTION OF A BIOLOGICAL STUDY OF PISSODES NOTATUS F. (COL. CURCULIONIDAE). (FR )**
P Carle
*Rev Zool Agr Appl 66(10-12, 4TH TRIMESTER):139-151*
1967 410.9 SO12
Curculionidae, Insect biology, Insect morphology, Insect rearing, Life cycle, Parthenogenesis.
Laboratory rearing of Pissodes notatus and study of various stages of the life cycle under experimental conditions are given.

**22367-68**
**MORPHOLOGY OF THE BLACK FLY PROSIMULIUM FROHNEI SOMMERMAN (DIPT. SIMULIIDAE).**
G Carlsson
*Opusc Entomol 33(1-2):191-196*
1968 421 OP7
Insect morphology, Simuliidae, Zoogeography.

**22368-68**
**INVESTIGATIONS INTO THE CIRCUMPOLAR BLACKFLY FAUNA (FAM. SIMULIIDAE, DIPT.). (NO )**
G Carlsson
*Opusc Entomol 33(1-2):12-14*
1968 421 OP7
Insect ecology, Simuliidae, Zoogeography.

**22369-68**
**LIGHT-INHIBITION OF FLASHING IN THE FIREFLY PHOTURIS MISSOURIENSIS.**
J Case M S Trinkle
*Biol Bull 135(3):476-484 REF*
Dec 1968 442.8 B52
Central nervous system, Insect physiology, Lampyridae, Luminescence, Photosensitization.

**22370-68**
**RESEARCH ON THE SEXUAL BEHAVIOR OF PITYOKTEINES SPINIDENS REIT. (COLEOPTERA SCOLYTIDAE POLYGAMOUS) AND A STUDY OF THE FACTORS THAT MAKE THE MALE MORE ATTRACTIVE TO THE FEMALE. (FR )**
C Chararas
*Acad Sci Compt Rend Ser D Sci Nat 266(18, 1ST SEMESTER):1852-1855*
29 Apr 1968 505 P21
Insect behavior, Pheromones, Scolytidae, Sex attractants, Sex behavior.

**22371-68**
**NOTES ON THREE SPECIES OF ACTIA (DIPT., TACHINIDAE), PARASITES OF OAK-FEEDING CATERPILLARS.**
L Cheng
*Entomologist (london) 100(1253):265-268*
Oct 1967 421 EN8
Food habits, Operophtera brumata, Parasitism, Tachinidae.

**22372-68**
**DISRUPTED FERTILITY OF THE HIDEBEETLE DERMESTES MACULATUS (DEG.) DUE TO DIETARY OVERDOSE OF BIOTIN.**
E Cohen H Z Livinson
*Experientia 24(4):367-368*
15 Apr 1968 475 EX7
Biotin, Dermestidae, Insect metabolism, Insect physiology, Sterility.

**22373-68**
**DAILY WEIGHT GAIN OF THE EUROPEAN CORN BORER REARED ON ARTIFICIAL MEDIA (LEPIDOPTERA: PYRAUSTIDAE).**
S C Conway J A Harding
*Kans Entomol Soc J 40(1):1-3*
Jan 1967 420 K13
Culture media, Insect morphology, Insect rearing, Light, Ostrinia nubilalis, Research.

22374-68
**AN INVESTIGATION OF FACTOR S, A NEUROMUSCULAR EXCITATORY SUBSTANCE FROM INSECTS AND CRUSTACEA.**
B J Cook
*Biol Bull 133(3):526-538 REF*
Dec 1967 442.8 B52
Biochemistry, Insect physiology, Muscles, Neurology.

22375-68
**STUDY ON THE PERMIABILITY OF THE SENSORY ORGANS OF THE APPENDAGES OF THE HEAD IN THE LARVAE OF SPEOPHYES LUCIDULUS (DELAR.) (COLEOPTERA). (FR )**
G Corbiere
*Acad Sci Compt Rend Ser D Sci Nat 267(25, 2ND SEMESTER):2197-2199*
16 Dec 1968 505 P21
Coleoptera, Insect physiology, Larvae, Permeability, Sense organs.

22376-68
**THE CONCEPT OF MICROCLIMATE FROM AN ENTOMOLOGICAL POINT OF VIEW.**
C-C Coulianos
*Opusc Entomol 33(1-2):51-57 REF*
1968 421 OP7
Demography, Entomology, Insect ecology, Microclimate, Zoogeography.

22377-68
**CONTRIBUTIONS TO THE MORPHOLOGICAL DIFFERENTIATION BETWEEN THE FEMALES OF PHLEBOTOMUS MAJOR AND PHLEBOTOMUS PERFILIEWI (DIPTERA, PSYCHODIDAE) IN ROMANIA. (FR )**
A Cristesco P Dancesco
*Arch Gesamte Virusforsch 26(2):319-326 REF*
Jun 1967 448.3 AR22
Insect morphology, Phlebotomus, Russian, German, and English abstracts

22378-68
**HONEY BEES AND THE FARMER.**
D G Cunningham
*Tasmanian J Agr 38(4):263-265*
Nov 1967 23 T182T
Apiculture, Apis mellifera, Honey, Insect pollinators.

The importance of commercial apiculture for adequate production of Tasmanian farm crops is discussed.

22379-68
**INVESTIGATIONS CONCERNING THE MORPHOLOGICAL CHARACTERS OF THE VARIATY PHLEBOTOMUS CHINENSIS BALCANICUS THEODOR 1958. (FR**
P Dancesco
*Arch Gesamte Virusforsch 26(2):425-430 REF*
Jun 1967 448.3 AR22
Insect taxonomy, Phlebotomus.

22380-68
**THE POST-CEPHALIC STOMODIAL NERVOUS SYSTEM OF SCHISTOCERCA GREGARIA FORSK. (ORTHOPTERA) AND BLABERA CRANIIFER BURM. (DICTYOPTERA). (FR )**
J Dando B Chanussot M R Dando
*Acad Sci Compt Rend Ser D Sci Nat 267(22, 2ND SEMESTER):1852-1855 REF*
25 Nov 1968 505 P21
Blattidae, Insect morphology, Nervous system, Schistocerca gregaria.

22381-68
**TO THE METHODS OF STUDYING THE ENVIRONMENTAL TEMPERATURE OF THE TICK IXODES RICINUS L.**
M Daniel V Cerny
*Folia Parasitol 14(2):177-183*
May 1967 436.8 C33
Insect ecology, Ixodes ricinus, Methodology, Microclimate, Temperature.

22382-68
**CHROMATOGRAPHIC EVIDENCE FOR MUREIN FROM THE BACTEROID SYMBIOTES OF PERIPLANETA AMERICANA (L.).**
R S Daniel M A Brooks
*Experientia 23(6):499-502 REF*
15 Jun 1967 475 EX7
Bacteria, Cell wall, Chromatography, Periplaneta americana.

22383-68
**NITROGEN AND PHOSPHORUS CONTENT OF GREENBUGS REARED ON FERTILIZED WHEAT.**
N E Daniels G C Wilson C S Clarke
*J Econ Entomol 61(6):1746-1747*
16 Dec 1968 421 J822
Biochemistry, Fertilizers, Insect physiology, Nitrogen, Phosphorus, Schizaphis graminum, Wheat.

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**EGG PRODUCTION OF HOUSE-FLY ADULTS FED HUMAN BLOOD CONTAINING VARIOUS SUPPLEMENTS.**
D M Davies E L Anderson
*Entomol Soc Ontario Proc 97:111-114*
1966 420 ON8
Blood, Eggs, Feeding, Musca domestica, Nutrition, Reproduction, Research.

22385-68
**OBSERVATIONS ON THE BIOLOGY OF GYMNAETRON PASCUORUM (GYLL.) (COLEOPTERA: CURCULIONIDAE).**
E A Dickason
*Coleopt Bull 22(1):11-15*
Mar 1968 421 C674
Curculionidae, Habitats, Insect behavior, Insect ecology, Insect rearing.

22386-68
**LATE-SEASON FEEDING AND EMERGENCE OF THE TOBACCO FLEA BEETLE.**
C B Dominick
*J Econ Entomol 61(6):1743-1744*
16 Dec 1968 421 J822
Cultural control (insects), Epitrix hirtipennis, Feeding, Insect behavior, Metamorphosis, Plant pest control, Tobacco.

22387-68
**CONTRIBUTIONS TO THE BIOLOGY OF THE BUMBLE BEE. (GE )**
S Dottlinger
*Verhandl Zool-bot Gesell Wien 107:29-41 REF*
1967 410.9 V67
Bombus, Fertility, Insect behavior, Insect dissemination, Insect eggs, Nesting, Precipitation, Reproduction, Social insects, Tables (data), Vertebrates, Weather.

22388-68
**SOUND-PRODUCTION IN NETHERLAND LYCAENIDAE.**
J C Downey
*Entomol Ber 27(8):153-157*
01 Aug 1967 420 N38B
Insect behavior, Insect morphology, Lycaenidae, Pupae, Stridulation.

22389-68
**THE DANCE OF THE BEES.**
E Edelson
*New York Zool Soc Anim Kingdom Mag 73,1E.71(3)*
Jun 1968 410.9 N4830B
Bees, Environment, Feeding, Insect behavior, Research, Social insects.

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**CAN INSECT HORMONES AND THEIR MIMICS BE USED TO CONTROL PESTS .**
P Ellis
*Pans (pest Articles News Sum) Sect A Insect Contr 14(3):329-342 REF*
Aug 1968 423.92 G798
Biochemistry, Hormones, Insect control, Insect physiology.

22391-68
**PROGRESS REPORT ON LABORATORY REARING OF BLACK FLIES (DIPTERA: SIMULIIDAE).**
G Field R J Duplessis A P Breton
*J Med Entomol 4(3):304-305 REF*
10 Aug 1967 421 J828
Feeding, Insect rearing, Laboratories, Reports, Research, Simulium vittatum.

22392-68
**A LABORATORY INVESTIGATION OF MATURATION IN THE CUBAN BURROWING COCKROACH· BYRSOTRIA FUMIGATA (GUERIN).**
W R Fleischmann H K Miller R V Skavaril
*Ohio J Sci 68(1):11-17*
Jan 1968 410 OH3
Byrsotria fumigata, Experimental insects, Insect morphology, Insect physiology, Insect rearing, Research.

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**A COLLECTION DEVICE FOR LEPTOCONOPS KERTESZI (DIPTERA: CERATOPOGONIDAE) BITING GNATS.**
J D Foulk R D Sjogren
*J Med Entomol 4(3):281-283*
10 Aug 1967 421 J828
Diptera, Ecology, Insect collecting equipment, Insect control, Leptoconops kerteszi, Research.

22394-68
**THE INFLUENCE OF CERTAIN FACTORS ON THE FECUNDITY OF SITOPHILUS ORYZAE (L.).**
G J J Fouric
*S Afr J Agr Sci 10(2):331-344 REF*
Jun 1967 24 SU3
Eggs, Fertility, Humidity, Insect biology, Sitophilus oryzae, Temperature.

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**CALCULATING THE GRADE OF EFFECTIVENESS OF A MICROBIOLOGICAL CONTROL ACTION AGAINST INSECT PESTS. (GE )**
J M Franz
*Anz Schadlingskunde 41(5):65-71 REF*
May 1968 421 AN9
Biochemistry, Insect control, Insect pests, Microbiology, Mortality, Tables (data). English summary

22396-68
**DIETARY CHOLINE REQUIREMENTS FOR SPERM MOTILITY AND NORMAL MATING ACTIVITY IN DROSOPHILA MELANOGASTER.**
B W Geer
*Biol Bull 133(3):548-566 REF*
Dec 1967 442.8 B52
Choline, Drosophila melanogaster, Fertility, Insect nutrition, Sex behavior, Spermatozoa.

22397-68
**CONTRIBUTIONS TO THE KNOWLEDGE OF HOST PLANTS OF MIDDLE GERMAN APHIDIDAE. (GE )**
H G W Gleiss
*Deut Entomol Ges Mitt 18(5):80-82*
15 Oct 1959 420 D482
Aphididae, Food plants, Insect behavior, Plants, Research.

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**CHANGES IN THE POPULATION OF CECIDOMYIIDAE. (GE )**
D Godan
*Deut Entomol Ges Mitt 18(3):46-49*
15 Jun 1959 420 D482
Cecidomyiidae, Humidity, Light, Population statistics, Temperature.

22399-68
A SMALL CONTRIBUTION CONCERNING THE KNOWLEDGE OF CECIDOMYIIDAE. (GE )
D Godan
*Deut Entomol Ges Mitt 20(3):36-39*
15 Jun 1961 420 D482
Cecidomyiidae, Fagus, Insect behavior, Leaves.

22400-68
EMERGENCE OF PARASITES ASSOCIATED WITH THE CABBAGE APHID DURING A CHEMICAL-CONTROL PROGRAM.
G L Godfrey R B Root
*J Econ Entomol 61(6):1762-1763*
16 Dec 1968 421 J822
Brevicoryne brassicae, Carbaryl, Chemical control (insects), Cryolite, Hymenoptera, Insect physiology, Kale, Parasitic insects, Poisoning.

22401-68
NEW OBSERVATION CONCERNING THE PATHOGENIC ACTION OF TRYPANOSOMA RANGELI TEJERA, 1920 ON RHODNIUS PROLIXUS STAL, 1859. (SP )
I Gomez
*Acta Biol Venezuelica 5(15):247-254*
04 Dec 1967 475 AC86
Insect diseases, Insect physiology, Reduviidae, Rhodnius prolixus, Trypanosoma rangeli. English abstract

22402-68
FURTHER OBSERVATIONS ON THE BIOLOGY OF THE OYSTER NUT SHIELD BUG (PIEZOSTERNUM CALIDUM FAB.).
A J P Goodchild M C Lubega
*East Afr Agr Forest J 33(4):344*
Apr 1968 24 EA74
Aging, Color, Insect biology, Insect pests, Piezosternum calidum, Telfairia pedata.

22403-68
PRELIMINARY STUDIES ON THE EXISTENCE OF CHROMATIN VESICLES DIFFERENTIATED IN THE NUCLEI OF TROPHOCYTES OF EPHESTIA KUKNIELLA Z. (LEPIDOPTERA). (FR )
M Guelin
*Acad Sci Compt Rend Ser D Sci Nat 266(17, 1ST SEMESTER):1740-1742*
22 Apr 1968 505 P21
Cell nucleus, Chromatin, Cytology, Electron microscopy, Ephestia.

22404-68
A DEVICE FOR IMMOBILIZING INSECTS WITH COOLED AIR.
R L Harris E D Frazar
*J Econ Entomol 61(6):1755-1756*
16 Dec 1968 421 J822
Cooling, Equipment, Experimental insects, Haematobia irritans, Stomoxys calcitrans.

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NOTES ON ARGENTINE BUTTERFLY MIGRATION, 1965-66.
K J Hayward
*Entomologist (london) 100(1245):29-34*
Feb 1967 421 EN8
Butterflies, Insect migration, Lepidoptera.

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LABORATORY TECHNIQUES FOR REARING THE SUGARCANE BORER ON AN ARTIFICIAL DIET.
S D Hensley A M Hammond
*J Econ Entomol 61(6):1742-1743*
16 Dec 1968 421 J822
Diatraea saccharalis, Diet, Insect rearing.

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CONTRIBUTION TO THE HISTORY OF THE DISCOVERY OF INSECT HORMONES. (GE )
H G Herbst
*Deut Entomol Ges Mitt 21(4):62-63*
15 Aug 1962 420 D482
History, Hormones, Insect behavior, Insect physiology, Sphingidae.

22408-68
TEFLON AND CORNSTARCH-COATED PAPER AS SUBSTRATES FOR OVIPOSITION BY CABBAGE LOOPER MOTHS.
J D Hoffman S H Long W A Dickerson
*J Econ Entomol 61(6):1760*
16 Dec 1968 421 J822
Cornstarch, Insect behavior, Insect rearing equipment, Ovulation, Paper, Polytetrafluoroethylene, Trichoplusia ni.

22409-68
ARTIFICIAL PUPAL CELL FOR THE TOBACCO HORNWORM.
J D Hoffman W A Dickerson
*J Econ Entomol 61(6):1756-1757*
16 Dec 1968 421 J822
Insect rearing equipment, Manduca sexta, Pupae.

22410-68
PRESENCE OF A BLOOD-PRODUCING TISSUE AT THE LEVEL OF THE DORSAL DIAPHRAM OF LOCUSTA MIGRATORIA (ORTHOPTERA). (FR )
J A Hoffmann A Porte P Joly
*Acad Sci Compt Rend Ser D Sci Nat 26(18, 1ST SEMESTER):1882-1883*
29 Apr 1968 505 P21
Electron microscopy, Hematopoiesis, Histology, Insect morphology, Locusta migratoria.

22411-68
EFFECT OF ENDRIN AND TRICHLORFON APPLIED IN ARTIFICIAL DIET AGAINST LARVAE OF SUGAR-CANE BORER DIATRAEA SACCHARALIS (F.) (LEP.,PYRALIDAE).
I Hrdy J Zeleny K Novak
*Acta Ent Bohemoslov 64(4):243-247 REF*
20 Jul 1967 420 C33
Biological assay, Diatraea saccharalis, Diet, Endrin, Trichlorfon.

22412-68
OBSERVATIONS ON THE ALPINE FAUNA OF COLEOPTERA AND ITS ORIGIN. (FR )
S M Iablokoff-Khnzorian
*Beitr Entomol 18(1-2):177-211 REF*
1968 421 B392
Catalogs, Coleoptera, Insect ecology, Insect evolution, Zoogeography. German and Russian abstracts

22413-68
OBSERVATIONS ON THE LARVA OF HIPPOTION CELERIO LINNAEUS (LEPID., SPHINGIDAE) IN TANZANIA.
N S Irving
*Entomologist (london) 100(1254):285-286*
Nov 1967 421 EN8
Insect ecology, Larvae, Polymorphism, Sphingidae.

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PURIFICATION OF THE BRAIN HORMONE OF THE SILKWORM BOMBYX MORI.
H Ishizaki M Ichikawa
*Biol Bull 133(2):355-368 REF*
Oct 1967 442.8 B52
Biochemistry, Biological assay, Bombyx mori, Brain, Hormones.

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A STAINING TECHNIQUE FOR JACK-PINE BUDWORM EGG MASSES.
D T Jennings N D Addy
*J Econ Entomol 61(6):1766*
16 Dec 1968 421 J822
Choristoneura pinus, Insect eggs, Microscopy, Pine needles, Staining.

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THE UPTAKE OF STRONTIUM 90 BY CHIRONOMUS VARUS.
T H Jones
*Entomologist (london) 100(1244):2*
Jan 1967 421 EN8
Chironomidae, Radioactive contamination, Snails, Strontium isotopes.

22417-68
FEEDING AND OVIPOSITION BEHAVIOR IN THE MOSQUITO AEDES AEGYPTI (L.). I. PRELIMINARY STUDIES OF PHYSIOLOGICAL CONTROL MECHANISMS.
C L Judson
*Biol Bull 133(2):369-377 REF*
Oct 1967 442.8 B52
Aedes aegypti, Food habits, Insect behavior, Insect physiology, Reproduction.

22418-68
THE ABDOMINAL SCENT ORGAN MALE HAWK MOTHS. SUPPLEMENTS TO THE KNOWLEDGE OF HAWK MOTHS (III) (LEP. SPHINGIDAE). (GE )
K Kernbach
*Deut Entomol Ges Mitt 27(1):6-8*
15 Mar 1968 420 D482
Abdomen, Entomology, Glands (insects), Moths, Scent glands.

22419-68
THE MORPHOLOGICAL AND FUNCTIONAL EVOLUTION OF THE MOUTHPARTS IN ADULT LEPIDOPTERA.
N P Kristensen
*Opusc Entomol 33(1-2):69-72*
1968 421 OP7
Insect evolution, Insect morphology, Lepidoptera, Mouth parts.

22420-68
WEATHER AND DIURNAL PERIODICITY OF FLIGHT BY HELOPHORUS BREVIPALPIS BEDEL (COL. HYDROPHILIDAE).
J Landin
*Opusc Entomol 33(1-2):28-36*
1968 421 OP7
Diurnal rhythm, Hydrophilidae, Insect flight, Weather.

22421-68
A NEGLECTED DIAGNOSTIC CHARACTER OF THE APOIDEA (HYMENOPTERA).
U N Lanham
*Entomol News (philadelphia) 71(4):85-86*
Apr 1960 421 EN88
Anatomy, Apoidea, Cuticle, Insect identification, Physiology, Research.

22422-68
THE HISTOLOGY AND HISTOCHEMISTRY OF THE ANTERIOR MID-GUT OF PERIPLANETA AMERICANA L. (DICTYOPTERA: BLATTIDAE) WITH REFERENCE TO THE FORMATION OF THE PERITROPHIC MEMBRANE.
R F Lee
*Roy Entomol Soc London Proc Ser A Gen Entomol 43(7/9):122-134 REF*
31 Oct 1968 420 L84PA
Gastrointestinal system, Histochemistry, Insect anatomy, Insect histology, Periplaneta americana, Peritrophic membrane, Research.

22423-68
RANGES OF CIRCADIAN PERIOD LENGTH.
M Lohmann
*Experientia 23(9):788-790 REF*
15 Sep 1967 475 EX7
Diurnal rhythm, Insect behavior, Insect evolution, Leucophaea maderae.

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THE STERILIZING ACTION OF PARATHION ON THE OVARIES OF QUAIL AND CHICKEN EMBRYOS IN IN VITRO CULTURE. (FR )
Y Lutz-Ostertag R Meiniel
*Acad Sci Compt Rend Ser D Sci Nat 267(25, 2ND SEMESTER):2178-2180*
16 Dec 1968 505 P21
Chickens, Ovaries, Parathion, Quail, Sterilization, Tissue culture.

22425-68
REGENERATING TISSUES FROM THE COCKROACH, LEUCOPHAEA MADERAE: NERVE REGENERATION IN VITRO.
E P Marks J P Reinecke R A Leopold

*Biol Bull 135(3):520-529 REF*
Dec 1968 442.8 B52
Insect histology, Insect physiology, Leucophaea maderae, Nervous system, Regeneration.

**22426-68**
**TRANSMEMBRANE IONIC GRADIENTS IN LEPIDOPTERA AS RELATED TO CARDIAC ELECTRICAL ACTIVITY.**
F V McCann C R Wira
*Compar Biochem Physiol 22(2):611-615*
Aug 1967 444.8 C73
Bio-electric potential, Insect physiology, Lepidoptera, Permeability.

**22427-68**
**EFFECT OF DIET ON THE LIPID COMPOSITION OF THE COCKROACH BLABERUS DISCOIDALIS.**
J L McGuire A E S Gussin
*Compar Biochem Physiol 22(2):427-433 REF*
Aug 1967 444.8 C73
Biochemistry, Blaberus discoidalis, Chromatography, Diet, Lipids.

**22428-68**
**THE REGULATION OF OSMOTIC PRESSURE IN GALLERIA MELLONELLA L. (FR )**
G Mestres P Laviolette
*Acad Sci Compt Rend Ser D Sci Nat 266(19, 1ST SEMESTER):1969-1971*
06 May 1968 505 P21
Blood, Chemicals, Galleria mellonella, Insect physiology, Osmotic pressure.

**22429-68**
**THE EFFECT OF CASTRATION ON THE VENTRAL NEUROSECRETION CELLS OF THE INFRAESOPHAGEAL GANGLION IN THE PHASMID, CARAUSIUS MOROSUS (PHASMIDAE-ORTHOPTERA). (FR )**
J Mouton
*Acad Sci Compt Rend Ser D Sci Nat 266(20, 1ST SEMESTER):2120-2121 REF*
13 May 1968 505 P21
Castration, Insect physiology, Nervous system, Phasmatidae.

**22430-68**
**THE REARING OF LUPERINA NICKERLII KNILLI BOURSIN (1964) (LEP., NOCTUIDAE) UNDER LABORATORY CONDITIONS.**
A A Myers
*Entomologist (london) 100(1244):13-15*
Jan 1967 421 EN8
Insect rearing, Life cycle, Noctuidae.

**22431-68**
**FEEDING AND PARASITISM IN GNATS (DIPT.), ALSO SOME FINDS. (GE**
U V Neindorff
*Deut Entomol Ges Mitt 19(6):101-103*
15 Dec 1960 420 D482
Ceratopogonidae, Diptera, Feeding, Food, Insect behavior, Parasitism.

**22432-68**
**A GYNANDROMORPH OF OXYLIPEURUS MESOPELIOS (NITZSCH) (MALLOPHAGA) FROM PHASIANUS COLCHICUS L. .**
B Nilsson
*Opusc Entomol 33(1-2):80-81*
1968 421 OP7
Birds, Gynandromorphism, Insect taxonomy, Mallophaga, Pheasants.

**22433-68**
**CENTRAL NERVOUS SYSTEM CONTROL OF CIRCADIAN RHYTHMICITY IN THE COCKROACH. I. ROLE OF THE PARS INTERCEREBRALIS.**
J Nishiitsutsuji-Uwo S F Petropulos C S Pittendrigh
*Biol Bull 133(3):679-696 REF*
Dec 1967 442.8 B52
Biochemistry, Diurnal rhythm, Hormones, Insect behavior, Insect physiology, Leucophaea maderae, Nervous system, Periplaneta americana.

**22434-68**
**A FEEDING STIMULANT FOR PINK BOLLWORM LARVAE IN WATER EXTRACTS OF COTTON.**
W L Parrot T N Shaver J C Keller
*J Econ Entomol 61(6):1766-1767*
16 Dec 1968 421 J822
Cotton, Feeding, Insect behavior, Larvae, Pectinophora gossypiella, Plant extracts, Stimulants.

**22435-68**
**HISTOLOGICAL OBSERVATIONS OF THE FORMATION OF ELEMENTARY AND REPRODUCTIVE OVA IN THE OVARIES OF PLAGIOLEPIS PYGMAEA LATR. (HYMENOPTERA FORMICIDAE). (FR )**
L Passera J Bitsch C Bressac
*Acad Sci Compt Rend Ser D Sci Nat 266(24, 1ST SEMESTER):2270-2272*
10 Jun 1968 505 P21
Formicidae, Histology, Insect eggs, Insect physiology, Ovaries.

**22436-68**
**CULTURE OF SCORPION CELLS. (FR )**
F Peponnet J M Quiot
*Acad Sci Compt Rend Ser D Sci Nat 266(15, 1ST SEMESTER):1589-1592*
08 Apr 1968 505 P21
Methodology, Scorpionida, Tissue culture.

**22437-68**
**A NOTE ON THE OVIPOSITION OF SIMULIUM (S.) ABGYREATUM MEIGEN.**
A F Poole
*Entomologist (london) 100(1248):121*
May 1967 421 EN8
Habitats, Insect behavior, Oviposition, Simuliidae.

**22438-68**
**MANIFESTATIONS OF COMPETITION IN PARASITE COMPLEXES AS A PROBLEM IN BIOLOGICAL PEST CONTROL. (GE )**
H Pschorn-Walcher H Zwolfer
*Anz Schadlingskunde 41(5):71-76 REF*
May 1968 421 AN9
Biological control (pests), Butterflies, Hymenoptera, Insect behavior, Insect ecology, Insect evolution, Integrated control (insects), Parasitism, Population.

**22439-68**
**TOXICITY OF BACTERIAL SPORES TO FLY AND MOSQUITO LARVAE.**
R L Rajak S L Perti
*Pesticides 1(9):45 P, REF*
May 1968 S0B951.0P43
Bacillus thuringiensis, Culex pipiens quinquefasciatus, Larvae, Musca domestica nebulo, Spores.

**22440-68**
**EXPERIMENTAL STUDY OF THE EFFECT OF NUTRITION ON CYCLECOMPLETION IN PYTHIDAE PARASITES IN TROPICAL CULTURES. (FR )**
A Ravise
*Acad Sci Compt Rend Ser D Sci Nat 267(22, 2ND SEMESTER):1821-1824 REF*
25 Nov 1968 505 P21
Insect nutrition, Life cycle, Nutrition, Physiology, Phytophthora, Pythium.

**22441-68**
**ISOLATION OF THE POPULATION AGGREGATING PHEROMONE OF THE SOUTHERN PINE BEETLE.**
J A A Renwick J P Vite
*Boyce Thompson Inst Contrib 24(4,JUL-SEP):65-68*
Sep 1968 451 B69
Biochemistry, Chromatography, Dendroctonus frontalis, Pheromones.

**22442-68**
**THE DETERMINING FACTOR IN THE STABILIZATION OF THE ACID CONTENT ( HYDROXY-10 DECENE-2 OIQUE ) IN THE OVARIES OF APIS MELLIFICA L. (FR )**
B Roger J Pain
*Acad Sci Compt Rend Ser D Sci Nat 266(24, 1ST SEMESTER):2267-2269 REF*
10 Jun 1968 505 P21
Apis mellifera, Biochemistry, Ovaries.

**22443-68**
**THE EVOLUTION AND DISPERSAL OF THE GRASSLAND LEAFHOPPER GENUS EXITIANUS, WITH KEYS TO THE OLD WORLD SPECIES (CICADELLIDAE: HEMIPTERA).**
H H Ross
*Brit Mus (natur Hist) Entomol Bull Suppl 22(1):3-30 REF*
1968 420 B773
Cicadellidae, Insect evolution, Insect migration, Insect taxonomy, Zoogeography.

**22444-68**
**UNUSUAL MICROTUBULAR PATTERNS AND THREE-DIMENSIONAL MOVEMENT OF MEALYBUG SPERM AND SPERM BUNDLES.**
J Ross W G Robison
*J Cell Biol 40(2):426-445 REF*
Feb 1969 442.8 J828
Electron microscopy, Locomotion, Pseudococcus, Spermatozoa.

**22445-68**
**BEGINNING OF EMBRYONIC DEVELOPMENT WITHIN THE MATERNAL ORGANISM OF ICERYA PURCHASI MASK. (FR )**
M Royer R Delavault
*Acad Sci Compt Rend Ser D Sci Nat 267(17, 2ND SEMESTER):1390-1392*
21 Oct 1968 505 P21
Development, Embryology, Icerya purchasi, Insect physiology, Reproduction.

**22446-68**
**LIGHT REFLEXES OF CATERPILLARS OF BOMBYX MORI L. (LEPID.). (GE**
L Sciffert P Hoff
*Dent Entomol Ges Mitt 18(4):66-67*
15 Aug 1959 420 D482
Bombyx mori, Caterpillars, Insect behavior, Larvae, Light, Physiology.

**22447-68**
**RESPONSES OF TERMITES (INSECTA: ISOPTERA) TO GRAVITY.**
P K Sen-Sarma B K Gupta
*Cur Sci 37(17):501-502*
05 Sep 1968 475 SCI23
Gravitation, Habitats, Insect behavior, Termites.

**22448-68**
**A PHEROMONE-LIKE DISPERSANT AFFECTING THE LOCAL DISTRIBUTION OF THE EUROPEAN HOUSE CRICKET, ACHETA DOMESTICA.**
O J Sexton E H Hess
*Biol Bull 134(3):490-502*
Jun 1968 442.8 B52
Acheta domesticus, Attractants, Demography, Insect dissemination, Phermones.

**22449-68**
**STUDIES ON THE BIOLOGY OF ATHALIA PROXIMA KLUG (TENTHREDINIDAE; HYMENOPTERA).**
D B Shirke R R Rawat S V Dhamdhere
*Madras Agr J 55(5):228-234 REF*
May 1968 22 M262
Aging, Athalia proxima, Crop losses, Cruciferae, Histology, Insect behavior, Insect biology, Molting (insects), Morphology, Plant injuries.

**22450-68**
**ON THE DUCT OF SECRETORY GLANDS ON THE FIRST CHELICERAL SEGMENT IN THE FAMILY NEMASTIMATIDAE AND THE APPLICATION OF THIS CHARACTER IN TAXONOMY (OPILIONIDEA). (GE )**
V Silhavy
*Acta Ent Bohemoslov 64(4):319-321*
20 Jul 1967 420 C33
Glands (insects), Insect morphology, Insect taxonomy, Phalangida. English and Czech abstracts

22451-68
GAMMA AMINOBUTYRIC ACID CHANGES IN THE SPONTANEOUS FIRING RATES OF INSECT NEURONS.
O D Sittler R J DeRemer
*Experientia 23(4):284-285*
15 Apr 1967 475 EX7
Bio-electric potential, Biochemistry, Insect physiology, Nerves, Stimulants.

22452-68
POPULATIONS OF FALL ARMYWORM, CORN EARWORM, AND SUGARCANE BORER ON ST. CROIX, U.S. VIRGIN ISLANDS.
J W Snow W W Cantelo R L Burton S D Hensley
*J Econ Entomol 61(6):1757-1760 MAP*
16 Dec 1968 421 J822
Diatraea saccharalis, Heliothis zea, Insect populations, Insect traps, Spodoptera frugiperda, Surveys.

22453-68
OBSERVATIONS ON THE RATE OF HEARTBEAT IN THE VARIOUS STAGES OF THE TIGER BEETLE CICINDELA CANCELLATA DEJ.
A B Soans J S Soans
*Cur Sci 37(4):108*
20 Feb 1968 475 SCI23
Cicindelidae, Heart rate, Insect morphology, Insect physiology.

22454-68
ACCLIMATIZATION OF INSECTS TO LOW TEMPERATURES. (NO )
L Somme
*Opusc Entomol 33(1-2):57-63 REF*
1968 421 OP7
Cold, Insect acclimatization, Insect ecology, Temperature.

22455-68
EFFECT OF TEMPERATURE AND HUMIDITY ON THE SUSCEPTIBILITY OF BEDBUGS TO INSECTICIDES.
C P Srivastava S L Perti
*Pesticides 1(8):25-26 REF*
Apr 1968 S0B951.0P43
Carbamates, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, Cimex hemipterus, Diazinon, Dieldrin, DDT, Humidity, Insecticide resistant insects, Lindane, Malathion, Organophosphorus compounds, Temperature.

22456-68
ANTS- ANCIENT CITY DWELLERS.
H Steele
*Frontiers 32(5):8-11*
Jun 1968 410 F92
Formicidae, Insect behavior, Insect biology, Insect pests, Social insects.

22457-68
FINE STRUCTURE OF THE TIP OF CHEMOSENSITIVE HAIRS IN TWO BLOW FLIES AND THE STABLE FLY.
B Sturckow P E Holbert J R Adams
*Experientia 23(9):780-782 REF*
15 Sep 1967 475 EX7
Calliphoridae, Chemoreceptors, Electron microscopy, Hair, Phormia regina, Stomoxys calcitrans.

22458-68
DETERMINATION OF THE SUITABILITY OF A MICRODOSER FOR TOPICAL APPLICATION OF INSECTICIDES TO THE COLORADO POTATO BEETLE. (CZ
L Taimr J Dirlbek
*Czech Min Zemed Statnim Ustav Vedeckotech Inform Ved Pr 11:201-206*
1967 19.5 C3332
Biochemistry, Chemical control (insects), Insecticide application, Insecticides, Leptinotarsa decemlineata, Particle size determination, Radiometry, Triolein. English, German, and Russian summary.

22459-68
EVIDENCE FOR THE APPEARANCE OF CALCIUM IN MUSCLE FIBERS BY THE CHLORATING ACTION OF POTASSIUM AND THE TOXIN OF SCORPION VENOM (ANDROCTONUS AUSTRALIS). (FR )
F Tazieff-Depierre M Lievremont M Czajka
*Acad Sci Compt Rend Ser D Sci Nat 267(18, 2ND SEMESTER):1477-1478*
28 Oct 1968 505 P21
Calcium, Chemical analysis, Muscles, Scorpionida, Venoms.

22460-68
HOST-FEEDING PATTERNS OF CULEX TARSALIS IN THE SACRAMENTO VALLEY, CALIFORNIA, WITH NOTES ON OTHER SPECIES.
C H Tempelis R K Washino
*J Med Entomol 4(3):315-318 REF*
10 Aug 1967 421 J828
Culex tarsalis, Feeding, Geography, Insect behavior, Research.

22461-68
MONARCH BUTTERFLY (DANAUS PLEXIPPUS) MIGRATION STUDIES: AUTUMNAL MOVEMENT.
F A Urquhart
*Entomol Soc Ontario Proc 95:23-33 REF*
1964 420 ON8
Danaus plexippus, Geography, Insect behavior, Insect flight, Insect identification, Insect migration.

22462-68
SYSTEMATIC DISCONTINUITIES BETWEEN EGGS AND HOPPERS FROM INDIVIDUAL EGG-PODS OF THE BROWN LOCUST.
I G Venter W J Potgieter
*S Afr J Agr Sci 10(1):293-298*
Mar 1967 24 SU3
Acrididae, Demography, Eggs, Insect ecology, Insect outbreaks.

22463-68
INSECT AND HOST FACTORS IN THE AGGREGATION OF THE SOUTHERN PINE BEETLE.
J P Vite J A A Renwick
*Boyce Thompson Inst Contrib 24(4,JUL-SEP):61-63*
Sep 1968 451 B69
Demography, Dendroctonus frontalis, Insect behavior, Insect outbreaks, Pheromones.

22464-68
THE ECOLOGY OF SMINTHURUS VIRIDIS (COLLEMBOLA). II. DIAPAUSE IN THE AESTIVATING EGG.
M M H Wallace
*Australian J Zool 16(5):871-883*
Nov 1968 410 AU73
Collembola, Diapause, Insect eggs. Part I. in vol. 15:1173-1206, 1967

22465-68
CULISETA MELANURA (COQUILLETT) BREEDING IN ARTIFICIAL CONTAINERS.
R C Wallis L Whitman
*J Med Entomol 4(3):273-274*
10 Aug 1967 421 J828
Breeding, Culiseta melanura, Ecology, Insect cages, Plants, Research.

22466-68
THE EFFECT OF COLCHICINE ON MYOGENESIS IN VIVO IN RANA PIPIENS AND RHODNIUS PROLIXUS (HEMIPTERA).
R H Warren
*J Cell Biol 39(3):544-555 REF*
Dec 1968 442.8 J828
Colchicine, Hemiptera, Insect physiology, Muscles, Reduviidae.

22467-68
VEROMESSOR LOBOGNATHUS: FOURTH NOTE (HYMENOPTERA: FORMICIDAE).
G C Wheeler J Wheeler
*Kans Entomol Soc J 40(2):238-241*
Apr 1967 420 K13
Geography, Insect dissemination, Insect flight, Insect identification, Reports, Research, Veromessor lobognathus.

22468-68
A BROOD OF CALLIDIUM TEXANUM SCHAEFFER (CERAMBYCIDAE).
C E White
*Coleopt Bull 22(1):31-32*
Mar 1968 421 C674
Cerambycidae, Insect ecology, Sex ratios.

22469-68
A LABORATORY METHOD FOR CONTINUOUSLY REARING THE GREEN STINK BUG.
G Wilde
*J Econ Entomol 61(6):1763-1764*
16 Dec 1968 421 J822
Acrosternum hilare, Beans, Insect rearing, Insect rearing equipment, Methodology.

22470-68
EVALUATION OF TOPICALLY APPLIED DIMETHOATE FOR CONTROL OF LILAC LEAF MINER.
N W Wilkinson
*J Econ Entomol 61(6):1746*
16 Dec 1968 421 J822
Chemical control (insects), Dimethoate, Gracillaria syringella, Syringa.

22471-68
INDUCTION OF RESISTANCE TO BACILLUS THURINGIENSIS IN A LABORATORY STRAIN OF HOUSE FLIES.
B H Wilson E C Burns
*J Econ Entomol 61(6):1747-1748*
16 Dec 1968 421 J822
Bacillus thuringiensis, Insect cultures, Insect diseases, Insect eggs, Insect rearing, Musca domestica.

22472-68
TOXICITY OF SELECTED INSECTICIDES AGAINST ADULT STRIPED HORSE FLIES IN LABORATORY TESTS.
B H Wilson
*J Econ Entomol 61(6):1764-1765*
16 Dec 1968 421 J822
Biological assay, Chemical control (insects), Dosage, Insecticides, Mortality, Tabanus lineola, Time.

22473-68
THE ERGONOMICS OF CASTE IN THE SOCIAL INSECTS.
E O Wilson
*Amer Natur 102(923,JAN-FEB):41-66 REF*
27 Feb 1968 470 AM36
Insect behavior, Insect ecology, Insect genetics, Mathematical analysis, Social insects.

22474-68
MASS BREEDING OF THE KHAPRA BEETLE.
U Yinon
*J Econ Entomol 61(6):1738-1739*
16 Dec 1968 421 J822
Insect rearing, Methodology, Trogoderma granarium.

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22475-68
STUDIES ON THE TERMINAL RESPIRATORY SYSTEMS IN THE MINUTE (2)Z MUTANT OF DROSOPHILA MELANOGASTER.
H H Goldin
*J Exp Zool 169(1):53-58 REF*
Sep 1968 410 J825
Adenosine triphosphates, Drosophila melanogaster, Insect genetics, Insect respiration, Mitochondria, Mutation, Phosphorus, Research.

22476-68
THE RELATION BETWEEN INVERSION HETEROZYGOSITY AND DOMINANT LETHALITY IN DROSOPHILA PSEUDOOBSCURA.
R F Grell
*Amer Natur 102(923,JAN-FEB):87-89*
27 Feb 1968 470 AM36
Chromosomes, Drosophila pseudoobscura, Insect genetics.

22477-68
THE GENETICS OF CHILASA CLYTIA LANKESWARA (THE COMMON MIME).
P B Karunaratne C A Clarke P M Sheppard
*Entomologist (london) 100(1245):27-28*
Feb 1967 421 EN8
Insect genetics, Papilionidae, Zoogeography.

22478-68
MULTIPLE CORE COMPLEXES IN GRASSHOPPER SPERMATOCYTES AND SPERMATIDS.
P B Moens
*J Cell Biol 40(2):542-551 REF*
Feb 1969 442.8 J828
Chromosomes, Electron microscopy, Grasshoppers, Insect genetics, Meiosis, Spermatocytes.

22479-68
SELECTION OF PHASE TYPES BASED ON HOPPER COLORATION IN LOCUSTA MIGRATORIA MIGRATORIOIDES (REICHE FAIRMAIRE).
M D Nel
*S Afr J Agr Sci 10(2):461-470*
Jun 1967 24 SU3
Color, Demography, Insect genetics, Locusta migratoria.

22480-68
ON THE DISPERSAL OF DROSOPHILA.
B Wallace
*Amer Natur 102(923,JAN-FEB):85-87*
27 Feb 1968 470 AM36
Demography, Drosophila, Insect genetics, Mathematical analysis.

22481-68
DISPERSION OF DROSOPHILA PSEUDOOBSCURA.
S Wright
*Amer Natur 102(923,JAN-FEB):81-84*
27 Feb 1968 470 AM36
Demography, Drosophila pseudoobscura, Insect genetics, Mathematical analysis.

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22482-68
THE USE OF INSECTICIDES FOR CONTROL OF MOSQUITO LARVAE IN DENMARK.
K Arevad
*Opusc Entomol 33(1-2):37*
1968 421 OP7
Chemical control (insects), Culicidae, Insecticides, Larvae.

22483-68
DEET-IMPREGNATED NET SHIRT REPELS BITING FLIES.
E P Catts
*J Econ Entomol 61(6):1765*
16 Dec 1968 421 J822
Deet, Diptera, Protective clothing.

22484-68
A PRELIMINARY REPORT ON THE BREEDING SITES AND INCIDENCE OF AEDES IN DELHI.
M K K Pillai B V R Madhukar K K Grover
*Cur Sci 37(1):4-5*
05 Jan 1968 475 SC123
Aedes, Breeding, Habitats, Insect ecology, Surveys, Zoogeography.

## CROP PROTECTION

22485-68
LEGISLATION FOR AERIAL SPRAYING.
*Victorian Hort Dig 12(2,MAY-JUL):31-32*
1968 80 V662
Aerial spraying, Agricultural legislation, Chemicals, Geography, Plant injuries.

22486-68
AERIAL SPRAYING BOOSTS JUTE OUTPUT.
G N Bhatia C J Fredriekson
*Pesticides 1(7):46-47*
Mar 1968 S0B951.0P43
Aerial spraying, Chemical control (insects), Chlorinated hydrocarbons, Fertilizers, Jute, Lindane, Urea.

22487-68
THE KNOWLEDGE OF THE INTERDEPENDENCE BETWEEN SOIL PESTS, WEEDS, AND THEIR CONTROL MEASURES. (GE )
M Maceljski
*Anz Schadlingskunde 41(6):81-84*
Jan 1968 421 AN9
Herbicides, Insecticides, Methodology, Pest control, Pesticide application, Research, Soils, Weeds. Report given to 6th International Congress for Plant protection, vienna, 1967. english summary

22488-68
NEW INJECTION SYSTEM FOR KILLING OR CURING TREES.
M Newton
*Weed Soc Amer Abstr 1966 MEETING:30-31*
1966 241 W41
Chemical control (insects), Dosage, Equipment, Insecticides, Pesticide application, Silvicides, Tree control.

22489-68
BIOLOGICAL CONTROL OF INSECTS AND WEEDS.
F J Simmonds
*Pesticides 1(6):28 P*
Feb 1968 S0B951.0P43
Beneficial insects, Biological control (insects), Biological control (weeds), Plant pest control.

22490-68
CITRUS DISEASES AND PESTS.
K C Srivastava K M Bojappa K A Nanaya C K Nanjappa
*Pesticides 1(7):32-37*
Mar 1968 S0B951.0P43
Citrus, Insect pests, Mites, Plant diseases, Plant nematodes, Plant nutritional deficiencies, Plant pest control.

22491-68
THE PRINCIPLE OF INTEGRATED PLANT PROTECTION. (GE )
H Steiner
*Anz Schadlingskunde 41(9):129-131*
Sep 1968 421 AN9
Biological control (pests), Chemical control (pests), Economics, Integrated control (insects), Integrated control (weeds), Plant injuries, Plant protection. English and Freneh summary.

22492-68
INTEGRATED PLANT PROTECTION IN FRUIT GROWING. (GE )
H Steiner J Bosch
*Anz Schadlingskunde 41(9):135-139*
Sep 1968 421 AN9
Biochemistry, Chemical control (insects), Economics, Fruit, Insecticides, Plant injuries, Plant protection. English and French summary

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22493-68
VARIETAL RESISTANCE OF WINTER BARLEY TO LOOSE SMUT OF BARLEY (USTILAGO NUDA (JENS.) ROSTR.). (CZ )
P Bartos
*Czech Min Zemed Statnim Ustav Vedeckotech Inform Ved Pr 11:197-200*
1967 19 5 C3332
Barley, Breeding, Injections, Plant disease resistance, Research, Smut (barley), Ustilago nuda. English, Russian, and German summary.

22494-68
UTILIZATION OF CARBON COMPOUNDS BY FUSARIUM SOLANI F. AURANTIFOLIAE BHAT. AND PRASAD.
G C Bhatnagar N Prasad
*Indian Acad Sci Proc Sect B 68(3):163-168 REF*
Sep 1968 513 IN250B
Carbon compounds, Fusarium solani, Metabolism, Mycology, Sugars.

22495-68
SOME OBSERVATIONS ON VECTORS AND TRANSMISSION OF TOBACCO ETCH VIRUS.
H R Boyce C D McKeen
*Entomol Soc Ontario Proc 97:68-71*
1966 420 ON8
Etch (tobacco), Insect vectors, Physalis, Research, Tobacco.

22496-68
VIRUS TESTED DECIDUOUS FRUIT TREES.
C R Brough
*Victorian Hort Dig 12(2,MAY-JUL):27-30*
1968 80 V662
Agricultural outlook, Fruit, Plant protection, Research, Tree diseases, Virus diseases (plants).

22497-68
THE EVOLUTION OF RESISTANCE IN HOSTS AND PESTS. (GE )
J Crow
*Prakt Schadlingsbekampfer 20(4):33-35*
Apr 1968 421 P882
Insect ecology, Insect evolution, Insect pests, Mutation, Pesticides, Plant disease resistance, Viruses. Translated and introduced by E. Dohring, Bundesgesundheitsamt, Institut fur Wasser-Boden und Lufthygiene, Corrensplatz 1, 1 Berlin 33 (Dahlem).

22498-68
STUDIES ON THE INFECTION OF CUCUMBER MOSAIC VIRUS, III. TIME OF THE INFECTION AFTER INOCULATION WITH WHOLE VIRUS OR WITH VIRAL NUCLEIC ACID.
Y Ehara T Misawa
*Tohoku J Agr Res 17(3):193-200*
Mar 1967 22.5 T574
Cowpeas, Cucumbers, Mosaic, Nucleic acids, Plant disease transmission, Virus diseases (plants).

22499-68
PESTICIDES AND MODERN PLANT PRODUCTION. (NO )
J Fjelddalen
*Opusc Entomol 33(1-2):38-42*
1968 421 OP7
Pesticides, Plant ecology, Plant pest control, Plant propagation, Reviews. English abstract

22500-68
EFFECTS OF TOMATO RINGSPOT VIRUS ON PLANT AND FRUIT DEVELOPMENT OF RASPBERRIES.
J A Freeman R Stace-Smith
*Can J Plant Sci 48(1):25-29*
Jan 1968 450 C16
Crop losses, Raspberries, Ring spot, Virus diseases (plants).

22501-68
THE DECAY OF CITRUS FRUITS CAUSED BY FUSARIUM LATERITIUM NEES (GIBBERELLA BACCATA (WALLR.) SACC.). (IT )
P Gambogi
*Agr Ital (N s 22)67(2,MAR-APR):77-83*
Apr 1967 16 AG8259
Citrus, Color, Diagnosis, Fungus diseases (plants), Fusarium lateritium, Research. English summary

22502-68
EARLY DETECTION OF INFECTION OF SUGARCANE BY RATOONSTUNTING DISEASE (RSD).
P B Hutchinson P G Stanley D R Strong
*Experientia 23(5):341*
15 May 1967 475 EX7
Diagnosis, Methodology, Phytopathology, Ratoon stunt, Sugarcane, Virus diseases (plants).

22503-68
DETERMINATION OF THE INHIBITION ACTIVITY IN THE SAP FROM POTATO LEAVES WITH REGARD TO THE X-VIRUS BY MEANS OF A SEROLOGICAL METHOD. (CZ)
E Jermoljev E Beckova
*Czech Min Zemed Statnim Ustav Vedeckotech Inform Ved Pr 11:207-212 REF*
1967 19.5 C3332
Leaves, Plant disease control, Plant disease resistance, Potatoes, Sap, Serological tests, Virus diseases (plants), Virus x (potatoes). English, German, and Russian summary.

22504-68
EFFECT OF AMINO ACIDS AND ORGANIC ACIDS ON THE SEXUAL REPRODUCTION OF SPECIES OF PHYTOPHTHORA AND PYTHIUM.
J A Leal B Gomez-Miranda
*Brit Mycol Soc Trans 50(PT 1):77-84 REF*
Mar 1967 451 B76
Amino acids, Fungi, Organic compounds, Phytophthora, Pythium, Reproduction.

22505-68
ON THE PRESENCE OF MYCOPLASMA-LIKE PARTICLES IN THE INNER BARK OF PLANTS DAMAGED BY DISEASES OF THE YELLOW TYPE (ASTER YELLOW, PHYLLODY OF CLOVER, STOLBUR OF TOMATOES) AND ON THE RELATIONSHIP OF THESE PARTICLES TO THE ONES FOUND IN VARIOUS INSECTA HOMOPTERA. (FR)
P L Maillet J P Gourret C Hamon
*Acad Sci Compt Rend Ser D Sci Nat 266(24, 1ST SEMESTER):2309-2311 REF*
10 Jun 1968 505 P21
Aster yellows, Clover, Electron microscopy, Histology, Homoptera, Phyllody, Stolbur, Vinca, Yellows.

22506-68
BOTRYTIS STEM ROT. HOW TO CONTROL IT.
R E Partyka
*Amer Veg Grower 16(11):26-28,39-40*
Nov 1968 80 C733
Botrytis cinerea, Diagnosis, Fungicides, Fungus diseases (plants), Stem rot, Temperature, Tomatoes.

22507-68
A VIRUS OF TABACCO RATTLE GROUP NATURALLY OCCURRING IN PLANTAGO SP. IN TCZECHOSLOVAKIA.
Z Polak O Kralik M Cech
*Biol Plant 10(1):31-36 REF*
Jan 1968 450 B52
Biological assay, Plantago, Rattle disease (tobacco), Tobacco.

22508-68
IMPATIENS PARVIFLORA DC.--A NATURAL HOST OF CABBAGE BLACK RINGSPOT AND CUCUMBER MOSAIC VIRUSES.
Z Polak
*Biol Plant 9(5):354-359 REF*
Oct 1967 450 B52
Black ring spot (cabbage), Cabbage, Cucumbers, Mosaic (cucumbers), Tobacco, Virus diseases (plants), Wild flowers.

22509-68
FRUIT DISEASES IN ILLINOIS IN 1967.
D Powell
*Ill State Hort Soc Trans 101:99-101*
1968 81 10L6
Apples, Peaches, Plant diseases, Strawberries, Surveys.

22510-68
STRAIN VARIATION AND HOST SPECIFICITY OF RHIZOBIUM. II. HOST SPECIFICITY OF RHIZOBIUM TRIFOLII ON EUROPEAN CLOVERS.
S Saubert J G Scheffler
*S Afr J Agr Sci 10(1):85-94 REF*
Mar 1967 24 SU3
Clover, Nitrogen-fixation, Rhizobium.

22511-68
CONTROL PEACH LEAF CURL.
W J Sell
*Victorian Hort Dig 12(2,MAY-JUL):7-8*
1968 80 V662
Bordeaux mixture, Chemical control (plant diseases), Fungus diseases (plants), Leaf curl, Peaches, Spraying.

22512-68
FURTHER STUDIES ON MOSAIC DISEASE OF MAIZE (ZEA MAYS L.).
M L Seth S P Raychaudhuri
*Biol Plant 9(5):372-376*
Oct 1967 450 B52
Corn, Hydrogen-ion concentration, Insect vectors, Mosaic, Schizaphis graminum, Sugarcane, Virus diseases (plants).

22513-68
VIRUS LIKE PARTICLES IN FICUS ELASTICA ROXB.
J Smolak J Brcak
*Biol Plant 10(1):81-83*
Jan 1968 450 B52
Ficus clastica, Necrosis, Virus diseases (plants).

22514-68
POTENTIAL FUNGICIDES.
K S L Srivastava
*Cur Sci 37(11):315-316*
05 Jun 1968 475 SCI23
Biological assay, Chemical reactions, Euphorbia, Fungicides, Helminthosporium.

22515-68
PENTACHLOROBENZYL ALCOHOL, ACETATE, PROPIONATE AND BUTYRATE FOR COMBATTING RICE BLAST. PATENT 3,426,135.
H Sumi Y Takahi Y Kondo Y Hamamoto T Nishimura
*Us Patent Office Offic Gaz 859(1):281*
04 Feb 1969 156.65 OF2
Blast (rice), Fungus diseases (plants), Patents, Pentachlorobenzyl acetate, Pentachlorobenzyl alcohol, Pentachlorobenzyl butyrate, Pentachlorobenzyl propionate, Rice.

22516-68
HOW PLANTS PROTECT THEMSELVES AGAINST FUNGUS.
R L Wain
*Pesticides 1(5):25-26*
Jan 1968 S0B951.0P43
Fungus diseases (plants), Plant disease resistance.

## ARTHROPODS

22517-68
INSECTICIDES IN NORWEGIAN FORESTRY. (NO)
A Bakke
*Opusc Entomol 33(1-2):42-43*
1968 421 OP7
DDT, Forestry, Hylobius, Insecticides, Lindane. English abstract

22518-68
AN ESTIMATE OF THE AREA OF DANISH FORESTRY WHICH IS TREATED WITH PESTICIDES OTHER THAN HERBICIDES.
B Bejer-Petersen
*Opusc Entomol 33(1-2):44-46*
1968 421 OP7
Chemical control (insects), DDT, Forestry, Insect control, Lindane, Organophosphorus compounds.

22519-68
SETTING UP A METHOD FOR CONTROL OF CLOVER WEEVILS. (FR)
M Bertran P Jourdheuil
*Rev Zool Agr Appl 66(10-12, 4TH TRIMESTER):117-138 REF*
1967 410.9 SO12
Chemical control (insects), Curculionidae, DDT, Hypera, Insect pollinators, Predaceous insects, Red clover, Toxaphene.

The chemical control of various weevils of red clover is discussed. Side effects of treatment on the grain, the insect pollinators, and natural predators are considered.

22520-68
LATE BLIGHT OF POTATOES.
J H Brandon
*New Zeal J Agr 117(6):53,55,57,59*
Dec 1968 23 N48J
Chemical control (plant diseases), Late blight (potatoes), Potatoes.

Fungicidal control of late blight of potatoes in New Zealand is discussed. The advantages of different methods of crop spraying are given.

22521-68
SEARCH FOR MORE RICE.
F C Byrnes
*Pesticides 1(9):11-14*
May 1968 S0B951.0P43
Carbamates, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, Lindane, Rice.

22522-68
EFFECTS OF LINDANE AND CARBARYL ON INSECTS, SOIL AND PLANT NITROGEN, AND GRAIN YIELD OF RICE.
S K De Datta R S Ayyangar J T Magbanna
*Exp Agr 3(3):239-247*
Jul 1967 10 EX72
Carbaryl, Chemical control (insects), Chilo suppressalis, Crop yields, Insect control, Lindane, Nephotettix, Rice.

22523-68
BIOASSAY EVALUATION OF HEPTACHLOR, ISOBENZAN, AND DIAZINON USED AGAINST THE ALFALFA WEEVIL IN NORTHERN UTAH.
D W Davis L L Wu
*J Econ Entomol 61(6):1751-1752*
16 Dec 1968 421 J822
Alfalfa, Biological assay, Chemical control (insects), Diazinon, Heptachlor, Hypera postica, Insecticide resistant insects, Isobenzan.

22524-68
PROBLEMS IN PLANT PATHOLOGY AND ENTOMOLOGY FIELD TRIALS.
G H Freeman
*Exp Agr 3(4):351-358 REF*
Oct 1967 10 EX72
Entomology, Experimental design, Methodology, Plant diseases, Statistics, Surveys.

22525-68
THE ARMYWORM PSEUDALETIA UNIPUNCTA HAWORTH IN ONTARIO IN 1964.
H W Goble
*Entomol Soc Ontario Proc 95:11-14*
1964 420 ON8
Chemical control (insects), Crop losses, Food plants, Insect dissemination, Insect outbreaks, Pseudaletia unipuncta, Research.

22526-68
CHEMICAL WEED CONTROL.
M N Hari
*Pesticides 1(7):16-17*
Mar 1968 S0B951.0P43
Chemical control (weeds), Crops, Herbicides.

22527-68
THE CONTINUING STRUGGLE AGAINST WEEDS.
B J Heywood
*Pesticides 1(7):13-15*
Mar 1968 S0B951.0P43
Chemical control (weeds), Crops, Herbicides.

22528-68
OCCURRENCE OF BLUE LEAF-HOPPER TYPHLOCYBA MACULIFRONS MOTSCH ON RICE.
P Israel B C Misra
*Cur Sci 37(4):113-114*
20 Feb 1968 475 SCI23
Hemiptera, Insect identification, Rice.

22529-68
RED MITE CONTROL IN HAWKE'S BAY ORCHARDS.
J A Jarvis
*New Zeal J Agr 117(6):24-25,27,29*
Dec 1968 23 N48J
Acaricides, Chemical control (insects), Panonychus ulmi, Parasitic insects, Trees.

22530-68
INSECTICIDES IN FINNISH FORESTRY. (NO )
E Kangas
*Opusc Entomol 33(1-2):46-49*
1968 421 OP7
Diprion, DDT, Forestry, Hylobius, Insecticides. English abstract

22531-68
REFLECTIONS ON THE ESTIMATION OF FOOD LOSSES DUE TO BRUCHIDAE (COLEOPTERA). (FR )
Y de Luca
*Rev Zool Agr Appl 66(10-12, 4TH TRIMESTER):152-154*
1967 410.9 SO12
Bruchidae, Crop losses, Economics, Grain, Leguminosae, Predaceous insects.

22532-68
SYSTEMIC INSECTICIDES EVALUATED FOR TWO-SPOTTED MITE CONTROL ON GREENHOUSE CUCUMBERS.
R J McClanahan
*Entomol Soc Ontario Proc 97:99-102*
1966 420 ON8
Biological control (insects), Chemical control (insects), Cucumbers, Greenhouse culture, Insecticides, Plant protection, Research, Tetranychus urticae.

22533-68
SUMMARY OF INSECT AND MITE INCIDENCE ON FRUIT IN 1967.
R H Meyer
*Ill State Hort Soc Trans 101:72*
1968 81 I0L6
Acarina, Fruit, Insect pests, Surveys.

22534-68
A STUDY ON CHANGES IN LARVAL AND PUPAL DENSITIES OF THE RICE STEM BORER, CHILO SUPPRESSALIS WALKER, IN ITS FIRST GENERATION.
A Otake
*Jap J Ecol 17(4):156-165*
Aug 1967 410 J272
Chilo suppressalis, Larvae, Plant injuries, Pupae, Research, Rice. Japanese summary

22535-68
CONTROL OF RED SPIDER MITE ON SOYA BEAN.
H K Patel V C Patel
*Pesticides 1(7):21-23*
Mar 1968 S0B951.0P43
Acaricides, Chemical control (insects), Soybeans, Tetranychidae.

22536-68
AERIAL PEST CONTROL.
H R Patel
*Pesticides 1(6):27,30*
Feb 1968 S0B951.0P43
Aerial spraying, Aircraft, Chemical control (insects), Plant pest control.

22537-68
A MECHANICAL HARVESTER FOR COLLECTING LARVAE OF THE WHEAT STEM SAWFLY.
L K Peterson H J Bergen H McKenzie
*Can J Plant Sci 48(1):109-110*
Jan 1968 450 C16
Cephus cinctus, Insect collecting equipment, Larvae, Wheat.

22538-68
FEEDING OF HORSEFLIES (TABANIDAE: DIPTERA) ON PLANT JUICES.
R H Roberts
*Entomol News (philadelphia) 78(9):250*
Nov 1967 421 EN88
Feeding, Plants, Research, Secretion, Tabanidae.

22539-68
RED LEGGED EARTH MITE AND PEA MITE REVISED CONTROL RECOMMENDATION.
*Tasmanian J Agr 38(1):40*
Feb 1967 23 T182T
Chemical control (insects), Imidan, Insecticide residues, Penthaleus major.

22540-68
PASTURE COCKCHAFER CONTROL INTERIM REVISED CONTROL RECOMMENDATION.
*Tasmanian J Agr 38(2):147-148*
May 1967 23 T182T
Aphodius, Azinphosmethyl, Carbaryl, Chemical control (insects), DDT, Insecticide residues, Lindane, Scarabaeidae.

Azinphosmethyl and carbaryl are recommended for the control of the pasture cockchafer, Aphodius and lieu of DDT lindane in order to reduce the level of field pesticide residues.

22541-68
FURTHER OBSERVATIONS OF THE TOLERANCE AND SUSCEPTIBILITY OF TEA CLONES TO SHOT-HOLE BORER INFESTATION.
K Thirugnanasuntharan D Calnaido
*Ceylon Tea Res Inst Tea Quart 39(PT 1-2,MAR-JUN):6-10*
Jun 1968 68.18 C33
Plant breeding, Plant pest resistance, Scolytus rugulosus, Tea.

22542-68
THE SMALL GOOSEBERRY SAWFLY (PRISTIPHORA PALLIPES LEP.), A LITTLE-KNOWN PEST OF GOOSEBERRIES. (DU )
A Van Frankenhuyzen
*Entomol Ber 27(2):21-24*
01 Feb 1967 420 N38B
Hymenoptera, Parasitism, Tenthredinidae. English abstract

22543-68
THE HOSTS AND LIFE HISTORIES OF THREE MIRID BUGS OF ECONOMIC IMPORTANCE WITH NOTES ON THEIR CONTROL.
J A Wightman
*Entomologist (london) 100(1254):281-283*
Nov 1967 421 EN8
Apples, Chemical control (insects), Chrysanthemum, Fruit, Miridae, Potatoes.

22544-68
THE PEAR PSYLLA, PSYLLA PYRICOLA FOERSTER, IN ONTARIO; HOMOPTERA: CHERMIDAE.
W H A Wilde
*Entomol Soc Ontario Proc 95:5-10 REF*
1964 420 ON8
Histology, Insect control, Psylla pyricola, Research.

## NEMATODES

22545-68
SOUTH AMERICAN ORIGIN OF EUROPEAN PATHOTYPES OF THE POTATO-ROOT EELWORM, HETERODERA ROSTOCHIENSIS WOLLENWEBER .
C Ellenby L Smith
*Nematologica 14(4):597-599 REF*
1968 436.8 N342
Evolution, Heterodera rostochiensis, Plant nematodes, Plant pest resistance, Potatoes.

22546-68
THE SURVIVAL OF DESICCATED LARVAE OF HETERODERA ROSTOCHIENSIS AND H. SCHACHTII. .
C. Ellenby
*Nematologica 14(4):544-548 REF*
1968 436.8 N342
Cysts, Drying, Heterodera rostochiensis, Heterodera schachtii, Longevity.

22547-68
ELECTROPHORETIC OBSERVATIONS ON THE PROTEIN COMPOSITION OF FREE-LIVING AND PLANT-PARASITIC NEMATODES, WITH A SPECIAL REFERENCE TO SOME COMPONENTS SHOWING A DIGESTIVE ACTIVITY.
H Gysels
*Nematologica 14(4):489-496 REF*
1968 436.8 N342
Electrophoresis, Plant nematodes, Proteinases.

22548-68
FLAVIANIC ACID AS A HATCHING AND STIMULATING AGENT FOR HETERODERA ROSTOCHIENSIS CYSTS.
G J Janzen
*Nematologica 14(4):601-602*
1968 436.8 N342
Chemistry, Cysts, Hatching, Heterodera rostochiensis, Potatoes, Stimulants.

22549-68
THE EFFECTS OF APHELENCHOIDES SAPROPHILUS, A. COFFEAE, APHELENCHUS AVENAE AND PANAGROLAIMUS SP. ON THE CROPPING OF CULTIVATED MUSHROOM.
R W McLeod
*Nematologica 14(4):573-576*
1968 436.8 N342
Aphelenchoides, Crop yields, Mushrooms, Plant nematodes.

22550-68
HORSENETTLE CYST NEMATODE, HETERODERA VIRGINIAE N. SP., A PARASITE OF SOLANACEOUS PLANTS.
L I Miller B J Gray
*Nematologica 14(4):535-543*
1968 436.8 N342
Heterodera, Solanaceae, Taxonomy.

22551-68
POTOTO CULTIVATION AND THE ROOT-LESION NEMATODE OF TEA.
P Sivapalan
*Ceylon Tea Res Inst Tea Quart 39(PT 1-2,MAR-JUN):4-5*
Jun 1968 68.18 C33
Plant nematodes, Potatoes, Roots, Tea.

22552-68
PROCESS FOR THE CONTROL OF NEMATODES USING PETROLEUM OIL AND WATER EMULSIONS. PATENT 3,426,126.
G Thorne A F Millikan
*Us Patent Office Offic Gaz 859(1):280*
04 Feb 1969 156.65 OF2
Chemistry, Nematodes, Patents, Pesticides, Petroleum, Plant protection, Water.

22553-68
THE ACTION OF CALCIUM CYANAMIDE ON SOME FUNGUS PREDATORS OF NEMATODES. (IT )
O Verona A A Lepidi
*Agr Ital (N s 22)67(2,MAR-APR):84-91*

Apr 1967 16 AG8259
Calcium cyanamide, Fungicides, Nematodes, Predaccous fungi. English summary.

## WEEDS

22554-68
**THE EFFECTS OF PETROLEUM MULCH AND HERBICIDES ON LETTUCE.**
H Agamalcan
*Weed Soc Amer Abstr 1966 MEETING:18*
1966 241 W41
Chemical control (weeds), Chloroallyl diethyldithiocarbamate, 2-, Herbicides, Isopropyl N-(3-chlorophenyl)carbamate, Lettuce, Mulches, Petroleum, Seedlings, Soil temperature, Trifluralin.

22555-68
**COMPETITION OF COW COCKLE (SAPONARIA VACCARIA L.) AND LINSEED FLAX.**
J F Alex
*Weed Soc Amer Abstr 1966 MEETING:55*
1966 241 W41
Clay soils, Crop yields, Flaxseed, Saponaria vaccaria, Seed planting, Weeds.

22556-68
**WEED CONTROL IN ESTABLISHED ALFALFA WITH SOIL-APPLIED HERBICIDES.**
A P Appleby W R Furtick D G Swan
*Weed Soc Amer Abstr 1966 MEETING:1*
1966 241 W41
Alfalfa, Atrazine, Bromacil, Bromus tectorum, Chemical control (weeds), Diuron, Herbicides, Simazine, Soil sanitation.

22557-68
**OBSERVATIONS ON THE USE OF PREPLANT HERBICIDES IN PASTURE ESTABLISHMENT IN THE WET TROPICS.**
D R Bailey
*Queensland J Agr Anim Sci 24(1):31-40*
Mar 1967 23 Q37
Chemical control (weeds), D, 2,4-, Diquat, Herbicide residues, Panicum maximum, Paraquat, Pasture management, Prometryne.

22558-68
**FACTORS AFFECTING THE ACTIVITY OF DIALLATE.**
J D Banting
*Weed Soc Amer Abstr 1966 MEETING:6*
1966 241 W41
Avena fatua, Biological assay, Chemical control (weeds), Clay soils, Diallate, Herbicide residues, Plant physiology, Soil moisture, Soil organic matter, Soil wilting coefficient, Vapors, Wheat.

22559-68
**AMINE-PHOSPHORUS PENTAFLUORIDE COMPLEXES AS HERBICIDES. PATENT 3,420,655.**
M E Brokke G E Lukes J Hazzard D R Arneklev
*Us Patent Office Offic Gaz 858(1):229*
07 Jan 1969 156.65 OF2
Amines, Fluorides, Herbicides, Patents, Phosphorus, Weed control.

22560-68
**HERBICIDAL 1-SUBSTITUTED 2,4,5-TRIBROMOIMIDAZOLES. PATENT 3,423,420.**
K H Buechel W Draber F W A G K Korte
*Us Patent Office Offic Gaz 858(3):948*
21 Jan 1969 156.65 OF2
Chemistry, Halogen compounds, Herbicides, Imidazoles, Patents, Weed control.

22561-68
**ATMOSPHERIC FUMIGATION OF DORMANT AND NON-DORMANT WEED SEED.**
D P Bush D W Staniforth
*Weed Soc Amer Abstr 1966 MEETING:59*
1966 241 W41
Abutilon theophrasti, Chemical control (weeds), Fumigants, Polygonum pensylvanicum, Seed dormancy, Seed germination, Setaria faberii, Setaria lutescens, Soil fumigation.

22562-68
**IMPORTANT WEEDS OF TURF AREAS IN NORTH CENTRAL STATES.**
J D Butler
*Weed Soc Amer Abstr 1966 MEETING:74,76-77*
1966 241 W41
Chemical control (weeds), Grasses, Turf, Weeds.

22563-68
**ENVIRONMENTAL CONTROL AT BOSTON-LOGAN INTERNATIONAL AIRPORT.**
J M Cortell
*Weed Soc Amer Abstr 1966 MEETING:92-93*
1966 241 W41
Accident prevention, Aircraft, Amitrole, Ammonium thiocyanate, Aquatic weeds, Bird control, Chemical control (weeds), Dalapon, Dosage, Environment, Herbicides, Phragmites communis, Sodium arsenite, Spraying.

22564-68
**EFFECTS OF HOEING-WEEDING-CUM-MANURING ON THE YIELD OF RAINFED GROUNDNUT IN THE PUNJAB.**
J L Dalal G S Gill J S Saini
*Indian J Agron 12(3):309-313*
Sep 1967 22 IN235
Crop yields, Cultural control (weeds), Peanuts, Superphosphates.

22565-68
**STUDIES OF THE GERMINATION, GROWTH AND DEVELOPMENT OF BARNYARDGRASS.**
C T Dickerson G H Bayer R D Sweet E M Rohn
*Weed Soc Amer Abstr 1966 MEETING:15-16*
1966 241 W41
Echinochloa crusgalli, Light, Plant ecology, Plant physiology, Seed germination, Soil moisture, Temperature, Weeds.

22566-68
**ORCHARD WEED CONTROL PROGRAMS FOR 1968.**
C C Doll
*Ill State Hort Soc Trans 101:78-80*
1968 81 I0L6
Chemical control (weeds), Fruit, Herbicides, Paraquat, Weed control.

22567-68
**CLOBBER - POST-EMERGENCE WEED KILLER.**
K P Dubrovin P W Gull
*Weed Soc Amer Abstr 1966 MEETING:2*
1966 241 W41
Chemical control (weeds), Corn, Cypromid, Herbicides, Spraying.

22568-68
**ALTERATIONS IN MITOSIS INDUCED BY ISOMERS OF HEXACHLOROCYCLOHEXANE. II. THE DELTA ISOMER. THE POSSIBLE MECHANISM OF ACTION OF HEXACHLOROCYCLOHEXANE. (SP)**
M E Fernandez-Gomez G Gimenez-Martin J F Lopez-Saez
*Genet Iber 19(3-4):123-142 REF*
1967 443.8 G28
Benzene hexachloride, Mitosis, Onions, Plant mutation. English abstract

22569-68
**USE OF BIPYRIDYL AND TRIAZINE HERBICIDES IN RASPBERRIES.**
J A Freeman
*Weed Soc Amer Abstr 1966 MEETING:20-21*
1966 241 W41
Chemical control (weeds), Chlorophylls, Crop losses, Herbicides, Paraquat, Raspberries, Simazine.

22570-68
**PHRAGMITES CONTROL IN DELAWARE, 1965.**
J E Gallagher J H Steenis R Beck
*Weed Soc Amer Abstr 1966 MEETING:94-95*
1966 241 W41
Amitrole, Ammonium thiocyanate, Biological assay, Buckwheat, Chemical control (weeds), Dalapon, Fenac, Herbicide residues, Pesticide application, Phragmites, Seed germination, Soybeans.

22571-68
**WILD BUCKWHEAT COMPETITION IN FLAX.**
R D Gruenhagen J D Nalenaja
*Weed Soc Amer Abstr 1966 MEETING:56*
1966 241 W41
Crop yields, Flax, Polygonum convolvulus, Seed planting, Weed control.

22572-68
**CONTROL OF WEEDS IN MAIZE FIELDS--A REVIEW.**
O P Gupta O P Gangwar
*Indian J Agron 12(1):70-76 REF*
Mar 1967 22 IN235
Chemical control (weeds), Corn, Crop yields, Ethyl N,N-dipropylthiolcarbamate, Simazine.

22573-68
**THE THIN-LAYER EFFECT AND THE HERBICIDAL ACTION OF 3,4-DICHLOROBENZYL METHYLCARBAMATE.**
R A Herrett J A Kramer
*Weed Soc Amer Abstr 1966 MEETING:51-52*
1966 241 W41
Chemical control (weeds), Dichlorobenzyl methylcarbamate, 3,4-, Field crops, Herbicides, Rainfall, Seed germination, Soil adsorption, Soil profiles, Vegetables.

22574-68
**RESULTS OF PRE-EMERGENT AQUATIC HERBICIDES IN ILLINOIS.**
R C Hiltibran
*Weed Soc Amer Abstr 1966 MEETING:100-101*
1966 241 W41
Aquatic weeds, Atrazine, Biochemistry, Chara, Chemical control (weeds), Dichlorobenil, Fenac, Herbicides, Najas guadalupensis, Pesticide application, Ponds, Potamogeton pectinatus, Simazine.

22575-68
**2-TRICHLOROMETHYLBENZOXAZOLE AS A HERBICIDE. PATENT 3,423,200.**
G Holan
*Us Patent Office Offic Gaz 858(3):907*
21 Jan 1969 156.65 OF2
Chemistry, Herbicides, Patents, Trichloromethylbenzoxazole, 2-, Weed control.

22576-68
**THE WOODY PLANT NURSERY--A USEFUL TOOL FOR EVALUATION OF HERBICIDES.**
R A Hursey H L Morton T O Flynt R E Meyer F S Davis R W Bovey
*Weed Soc Amer Abstr 1966 MEETING:23*
1966 241 W41
Aloysia lycioides, Brush control, Chemical control (weeds), Herbicides, Nurseries, Prosopis juliflora, Rosa bracteata, Tree control, Ulmus alata.

22577-68
**THE EFFECTS OF THREE FORMULATIONS OF BUTYRIC HERBICIDES ON NEWLY-SEEDED AND ESTABLISHED STANDS OF ALFALFA.**
R D Ilnicki
*Weed Soc Amer Abstr 1966 MEETING:12-13*
1966 241 W41
Alfalfa, Butyric acid, Chemical control (weeds), Esters, Herbicides.

22578-68
**SEED DORMANCY OF FUMARIA OFFICINALIS.**
L S Jefferey J D Walewaja
*Weed Soc Amer Abstr 1966 MEETING:58*

1966 241 W41
Fumaria officinalis, Gibberellic acid, Grain, Greenhouse culture, Plant physiology, Plant regulators, Seed dormancy, Seed germination, Weed control, Weeds.

**22579-68**
**EFFECT OF METHYL BROMIDE TREATMENTS ON SEVERAL SPECIES OF CONIFER SEED.**
L Jones K Havel
*66(11):858-860*
Nov 1968
Fumigation, Longevity, Methyl bromide, Phytotoxicity, Picea abies, Picea glauca, Pinus sylvestris, Seeds.

**22580-68**
**HERBICIDAL COMPOSITION. PATENT 3,425,820.**
K Kawai T Hisada N Ishimoto
*Us Patent Office Offic Gaz 859(1):226-227*
04 Feb 1969 156.65 OF2
Chemistry, Herbicides, Patents, Weed control.

**22581-68**
**ROOTING OF GRASSES AS AFFECTED BY SIDURON.**
H D Kerr D L Klingham
*Weed Soc Amer Abstr 1966 MEETING:26*
1966 241 W41
Chemical control (weeds), Grasses, Greenhouse culture, Herbicides, Pesticide application, Roots, Seed germination, Siduron.

**22582-68**
**EFFECTS OF DIRECT CONTACT OF PINE SEEDS OR YOUNG SEEDLINGS WITH COMMERCIAL FORMULATIONS, ACTIVE INGREDIENTS, OR INERT INGREDIENTS OF TRIAZINE HERBICIDES.**
T T Kozlowski S Sasaki
*Can J Plant Sci 48(1):1-7 REF*
Jan 1968 450 C16
Atrazine, Herbicides, Phytotoxicity, Pinus resinosa, Propazine, Seed germination, Simazine.

**22583-68**
**CONTROL OF OROBANCHE UNDER NATURAL AND ARTIFICIALLY INFESTED CONDITIONS.**
T Krishnamoorthi A S Krishnan
*Indian J Agron 12(3):277-282*
Sep 1967 22 IN235
Cultural control (weeds), Irrigation, Orobanche, Tobacco.

**22584-68**
**INCORPORATION OF HERBICIDES IN MULCHES.**
F O Lanphear
*Weed Soc Amer Abstr 1966 MEETING:19*
1966 241 W41
Chemical control (weeds), Dichlobenil, Diphenamid, Herbicides, Mulches, Ornamental plants, Simazine.

**22585-68**
**A NEW SMALL MULTIPLE TREE TECHNIQUE FOR ASSESSING THE EFFECTS OF HERBICIDES ON WOODY PLANTS.**
S K Lehman F S Davis
*Weed Soc Amer Abstr 1966 MEETING:23*
1966 241 W41
Brush control, Chemical control (weeds), Herbicides, Ilex vomitoria, Ulmus alata.

**22586-68**
**EVALUATION OF DIQUAT AS AN AQUATIC HERBICIDE APPLIED AT 2 GALLONS PER SURFACE ACRE, UNDER MINNESOTA CONDITIONS.**
J W Mackenzie G H Rogers
*Weed Soc Amer Abstr 1966 MEETING:98-99*
1966 241 W41
Aquatic weeds, Ceratophyllum demersum, Chemical control (weeds), Diquat, Dosage, Elodea canadensis, Herbicides, Lakes, Myriophyllum, Pesticide application, Ponds, Potamogeton.

**22587-68**
**PARTHENIUM WEED IN MADHYA PRADESH.**
J K Maheshwari
*Cur Sci 37(11):326-327*
05 Jun 1968 475 SCI23
Parthenium, Zoogeography.

**22588-68**
**RECENT DEVELOPMENTS IN THE CONTROL OF WOODY WEEDS IN NEW ZEALAND.**
G W Mason
*Weed Soc Amer Abstr 1966 MEETING:25*
1966 241 W41
Brush control, Chemical control (weeds), Cytisus, D, 2,4-, Herbicides, Picloram, Rosa, Rubus fruticosus, T, 2,4,5-, Ulex europaeus.

**22589-68**
**CHEMICAL CONTROL OF ALHAGI CAMELORUM.**
R L Mathur R K Vashistha
*Indian J Agron 12(1):31-33*
Mar 1967 22 IN235
Alhagi pseudalhagi, Chemical control (weeds), D, 2,4-, Grain, T, 2,4,5-.
The chemical control of the weed of rapi fields, Alhagi camelorum, with 2,4-D and 2,4,5-T is discussed.

**22590-68**
**AZAK - A NEW CRABGRASS HERBICIDE.**
J W Maxwell
*Weed Soc Amer Abstr 1966 MEETING:74-75*
1966 241 W41
Chemical control (weeds), Digitaria, Herbicides, Humans, Pets, Terbutol, Toxicology, Turf.

**22591-68**
**ENVIRONMENTAL VARIABLES AND WEED CONTROL WITH PYRAZON IN SUGAR BEETS.**
W F Meggitt
*Weed Soc Amer Abstr 1966 MEETING:11*
1966 241 W41
Biological assay, Chemical control (weeds), Dosage, Herbicide residues, Pyrazon, Soil contamination, Soil leaching, Soil organic matter, Sugar beets, Trichloroacetic acid.

**22592-68**
**CONTROL OF WHITEBRUSH (ALOYSIA LYCIOIDES CHAM.) WITH PICLORAM.**
R E Meyer
*Weed Soc Amer Abstr 1966 MEETING:24*
1966 241 W41
Aloysia lycioides, Brush control, Chemical control (weeds), Condalia obtusiffolia, Diospyros texana, Herbicides, Methyl-4-chlorophenoxyacctic acid, 2-, Opuntia leptocaulis, Picloram, Spraying.

**22593-68**
**INFLUENCE OF SOME AMINOTRIAZINE HERBICIDES ON SOME SOIL FUNGI. (IT )**
M Mickovski O Verona
*Agr Ital (N s 22)67(2,MAR-APR):67-76*
Apr 1967 16 AG8259
Carbon, Fungus diseases (plants), Herbicides, Nitrogen, Soil fungi, Triazines. English summary.

**22594-68**
**INFLUENCE OF SOIL TYPE ON THE TOLERANCE OF SUGARCANE TO FENAC.**
R W Millhollon
*Weed Soc Amer Abstr 1966 MEETING:12*
1966 241 W41
Biological assay, Chemical control (weeds), Crop losses, Fenac, Herbicide residues, Soil series, Sugarcane.

**22595-68**
**CHEMICAL WEED CONTROL IN POTATO (SOLANUM TUBEROSUM L.)--A REVIEW.**
M K Moolani S K Agarwal
*Indian J Agron 12(3):231-235 REF*
Sep 1967 22 IN235
Chemical control (weeds), Crop yields, Cultural control (weeds), Potatoes.

**22596-68**
**COMPOSITION AND METHOD FOR CONTROLLING UNDESIRABLE PLANT GROWTH. PATENT 3,425,821.**
L R Morris
*Us Patent Office Offic Gaz 859(1):227*
04 Feb 1969 156.65 OF2
Biochemistry, Herbicides, Patents, Plant physiology, Weed control.

**22597-68**
**TECHNIQUE TO STUDY THE MOVEMENT OF CDAA FROM A GRANULE INTO SOIL.**
J A Mullins W G Lovely C W Bockhop
*Weed Soc Amer Abstr 1966 MEETING:105*
1966 241 W41
Chloro-N,N-diallylacetamide, 2-, Herbicides, Rainfall, Soil analysis, Wind.

**22598-68**
**AQUATIC HERBICIDE. PATENT 3,421,880.**
D R Mussell T W Holmsen
*Us Patent Office Offic Gaz 858(2):546*
14 Jan 1969 156.65 OF2
Aquatic plants, Chemistry, Herbicides, Patents, Weed control.

**22599-68**
**HERBICIDE/SURFACTANT COMBINATIONS FOR CELERY SEEDBEDS.**
J D Orsenigo
*Weed Soc Amer Abstr 1966 MEETING:19*
1966 241 W41
Celery, Chemical control (weeds), Herbicides, Linuron, Prometryne, Surface-active agents.

**22600-68**
**SOME CHANGES IN WEED SPECIES IN RESPONSE TO CONTROL METHODS AND CHEMICALS IN HAWAII.**
B J Rogers H Ooka
*Weed Soc Amer Abstr 1966 MEETING:19*
1966 241 W41
Atrazine, Chemical control (weeds), Dalapon, Diuron, Herbicides, Macadamia integrifolia, Simazine, Spraying, Weed control, Weeds.

**22601-68**
**WEED CONTROL IN YOUNG PEACH ORCHARDS.**
W J Saidak
*Weed Soc Amer Abstr 1966 MEETING:20*
1966 241 W41
Amitrole, Atrazine, Chemical control (weeds), Dichlobenil, Dimethyl-3-(alpha,alpha,alpha-trifluoro-m-tolyl)urea, 1,1-, Diuron, Herbicides, Linuron, Paraquat, Peaches, Plant ecology, Plant physiology, Prometryne, Simazine.

**22602-68**
**WEED CONTROL IN SEEDLING ALFALFA.**
Wr Sallee
*Calif Agr 21(4):14-16*
Apr 1967 100 C12CAG
Alfalfa, Benefin, Chemical control (weeds), Herbicides, Seedlings, Weeds.

**22603-68**
**ADAPTING CHEMICAL WEED CONTROL PROGRAMS TO MEET ORCHARD CONDITIONS.**
D A Schallock W V Welker
*Weed Soc Amer Abstr 1966 MEETING:14-15*
1966 241 W41
Chemical control (weeds), Grasses, Herbicide residues, Herbicides, Orchards, Peaches, Soil contamination, Weeds.

**22604-68**
**CONTROL OF SUBMERGED AQUATIC WEEDS IN RICE FIELDS.**
D E Seaman
*Weed Soc Amer Abstr 1966 MEETING:99*
1966 241 W41
Aquatic weeds, Chara, Chemical control (weeds), Herbicides, Najas guadalupensis, Potamogeton nodosus, Rice.

22605-68
**BIOASSAY EVALUATION OF DEPTH DISTRIBUTION OF INCORPORATED SOYBEAN PREEMERGENCE HERBICIDES.**
J W Shriver L V Sherwood
*Weed Soc Amer Abstr 1966 MEETING:1*
1966 241 W41
Amiben, Biological assay, Chemical control (weeds), Herbicides, Linuron, Pesticide application, Soil sampling, Soybeans, Trifluralin.

22606-68
**EFFECT OF 2,4-D ON CROP WEED COMPETITION IN WHEAT.**
H G Singh
*Indian J Agron 12(1):25-30*
Mar 1967 22 IN235
Chemical control (weeds), D, 2,4-, Irrigation, Weeds, Wheat.

22607-68
**CONTROL OF NUTGRASS WEED BY CULTIVATION.**
T D Sinha C Thakur
*Indian J Agron 12(2):121-125*
Jun 1967 22 IN235
Cultural control (weeds), Cyperus rotundus, Tillage.

22608-68
**EURASIAN WATERMILFOIL (MYRIOPHYLLUM SPICATUM L.) IN THE TENNESEE VALLEY.**
G E Smith T F Hall R A Stanley
*Weed Soc Amer Abstr 1966 MEETING:93*
1966 241 W41
Aquatic weeds, Chemical control (weeds), D, 2,4-, Myriophyllum spicatum.

22609-68
**WEEDS AND WEED CONTROL. RAGWORT, SENECIO JACOBAEA, DECLARED NOXIOUS WEED.**
*Tasmanian J Agr 38(2):157-159*
May 1967 23 T182T
Integrated control (weeds), Senecio jacobaea, Weeds.

Ragwort, Senecia jacobaea, a Tasmanian plant poisonous to cattle is described for field identification. Control measures are also suggested.

22610-68
**USE OF HORMONE WEEDKILLERS NEAR VINEYARDS.**
F B Thompson
*New Zeal J Agr 117(6):93,95*
Dec 1968 23 N48J
Chemical control (weeds), Grapes, Hormones, Legislation, Toxicology, Weed control.

The author discusses the regulations concerning the use of hormonal herbicides near vineyards in New Zealand.

22611-68
**WEEDS WORTH WATCHING... THE SOURSOBS .**
A F Tideman
*S Australia J Agr 70(3):102-105 MAP*
Oct 1966 23 SO84
Chemical control (weeds), Oxalidaceae, Plant geography, Plant morphology, Weeds.

22612-68
**PROCESSING PEA RESPONSES TO MCPB APPLICATIONS AT DIFFERENT GROWTH STAGES.**
H J Vostral K P Buchholtz
*Weed Soc Amer Abstr 1966 MEETING:17*
1966 241 W41
Chemical control (weeds), Crop yields, Herbicides, Methyl-4-chlorophenoxy)butyric acid, 4-(2-, Peas, Plant morphology, Plant physiology.

22613-68
**INVESTIGATIONS WITH PARAQUAT (GRAMOXONE) AS A HERBICIDE FOR WEED CONTROL IN LOW-GROWN TEA.**
U P de S Waidyanatha
*Ceylon Tea Res Inst Tea Quart 39(PT 1-2,MAR-JUN):11-18*
Jun 1968 68.18 C33
Chemical control (weeds), Herbicides, Paraquat, Tea, Weed control.

22614-68
**HERBICIDE COMBINATIONS.**
J L Williams
*Weed Soc Amer Abstr 1966 MEETING:83-84*
1966 241 W41
Amiben, Atrazine, Chemical control (weeds), Chloro-N-isopropylacetanilide, 2-, Chloro-N,N-diallylacetamide, 2-, Crops, Herbicides, Isopropyl N-(3-chlorophenyl)carbamate, Naphthylphthalamic acid, N-1-, Onions, Soil contamination, Soil series.

22615-68
**AQUATIC VEGETATION CONTROL IN LOUISIANA.**
W E Wunderlich
*Weed Soc Amer Abstr 1966 MEETING:93-94*
1966 241 W41
Aconitic acid, Alternanthera philoxeroides, Aquatic weeds, Arsenic, Chemical control (weeds), D, 2,4-, Diglycolic acid, Eichhornia crassipes, Plant translocation, Waterways.

## OTHER PESTS

22616-68
**HOW SERIOUS IS RABBIT DAMAGE ON LOBLOLLY PINE SEEDLINGS .**
E V Hunt
*66(11):853*
Nov 1968
Longevity, Pinus taeda, Plant injuries, Rabbits, Seedlings.

22617-68
**SAPSUCKER DAMAGE TO PONDEROSA PINE.**
W W Oliver
*66(11):842-844*
Nov 1968
Bird pests, Feeding, Pinus ponderosa.

# LIVESTOCK PROTECTION

22618-68
**EFFECTS AND POSSIBILITIES OF USING COUMARIN PREPARATIONS IN RODENT CONTROL. (GE )**
K Becker
*Prakt Schadlingsbekampfer 20(6):84-87*
Jun 1968 421 P882
Biochemistry, Chemical control (pests), Coumarin, Pest control, Pharmacology, Rodents.

22619-68
**THE EFFECT OF DDT ON REPRODUCTION IN MICE.**
M S Cannon L C Holcomb
*Ohio J Sci 68(1):19-24 REF*
Jan 1968 410 OH3
Animal histology, Biochemistry, Diet, DDT, Insecticides, Mice, Reproduction, Research.

22620-68
**EFFECTS OF PROGESTERONE TREATMENTS ON DELAYED IMPLANTATION IN MINK.**
L C Holcomb
*Ohio J Sci 67(1):24-31 REF*
Jan 1967 410 OH3
Animal physiology, Breeding, Drug therapy, Injections, Minks, Pregnancy, Progesterone, Reproduction.

22621-68
**ON SAMPLING AND EXTRACTING TECHNIQUE FOR SOIL MICRO-ARTHROPODS.**
K Kikuzawa P Saichuae K Niijima M Tanaka J Aoki
*Jap J Ecol 17(1):20-28 REF*
Feb 1967 410 J272
Animals, Arthropoda, Equipment, Extracts, Methodology, Research, Soil microorganisms.

22622-68
**DEFINITION OF TERMS IN LARGE SCALE RAT CONTROL. (GE )**
E Kirchberg
*Prakt Schadlingsbekampfer 20(6):87-91*
Jun 1968 421 P882
Infectious diseases, Pest control, Rats.

## DISEASES

22623-68
**REV. I BRUCELLA MELITENSIS VACCINE. THE STABILITY OF THE DEGREE OF ATTENUATION.**
G G Alton S S Elberg D Crouch
*J Comp Pathol 77(3):293-300*
Jul 1967 41.8 J82
Brucella melitensis, Goats, Sheep, Vaccines, Virus diseases (animals).

22624-68
**REV. I BRUCELLA MELITENSIS VACCINE. SEROLOGICAL REACTIONS IN MALTESE GOATS.**
G G Alton
*J Comp Pathol 77(3):327-329*
Jul 1967 41.8 J82
Brucella melitensis, Goats, Serological tests, Vaccines, Virus diseases (animals).

22625-68
**PREPARATION AND CHARACTERIZATION OF A SOLUBLE ANAPLASMA MARGINALE ANTIGEN.**
T E Amerault T O Roby
*Amer J Vet Res 28(125):1067-1072*
Jul 1967 41.8 AM3A
Anaplasma, Antigens, Cattle, Erythrocytes, Serodiagnosis.

22626-68
**ISOLATION AND EXPERIMENTAL INFECTION OF CALVES WITH PARAINFLUENZA-3 VIRUS.**
F A Ata K V Singh
*J Vet Sci U A R 4(1):1-10 REF*
1967 S0F604.0J6
Calves, Hemagglutination-inhibition test, Livestock diseases, Parainfluenza-3 virus, Serum neutralization test.

22627-68
**THE RELATION BETWEEN THE LIVER RESERVES OF VITAMIN A AND SOME INTESTINAL PARASITES IN DOKKI 4 CHICKS. (A). IN CHICKS AFFECTED WITH CECAL COCCIDIOSIS.**
A A Bassiouni I A El-Hatw M A El-Ezz
*J Vet Sci U A R 4(1):35-42 REF*
1967 S0F604.0J6
Chickens, Coccidiosis vaccines, Liver, Metabolism, Sanitation, Vitamin a.

22628-68
**PRIMARY LESIONS IN CARDIAC GANGLIA OF THE PIG AFTER HERPESVIRUS SUIS INFECTION.**
C H Becker V Bergmann
*Amer J Vet Res 29(3):745-748 REF*
Mar 1968 41.8 AM3A
Heart, Herpesviruses, Histology, Nerves, Swine.

22629-68
**FURTHER DEVELOPMENT OF THE SECOND GENERATION OF EIMERIA TENELLA MEROZOITES IN TISSUE CULTURES.**
P Bedrnik
*Folia Parasitol 14(4):361-363*
Nov 1967 436.8 C33
Cytology, Eimeria tenella, Tissue culture.

22630-68
**PANTOTHENIC ACID METABOLISM DURING AVIAN MALARIA INFECTION: PANTOTHENATE KINASE ACTIVITY IN DUCK ERYTHROCYTES AND IN PLASMODIUM LOPHURAE.**
T P Bennett W Trager
*J Protozool 14(2):214-216*
May 1967 439.8 J82
Animal diseases, Avian malaria, Ducks, Erythrocytes, Kinases, Metabolism, Pantothenate, Pantothenic acid, Plasmodium.

22631-68
**ANTIGENIC VARIATION IN VIBRIO CHOLERAE RESULTING FROM CHROMOSOMAL TRANSFER BY CONJUGATION.**
K Bhaskaran V B Sinha S S Iyer
*Cur Sci 37(17):488-489*
05 Sep 1968 475 SC123
Antigens, Chromosomes, Heterogenesis, Serodiagnosis, Vibrio.

22632-68
**STUDIES OF PNEUMOENTERITIS IN CATTLE. (SP)**
A Blanco Loizelier
*Spain Patronato Biol Anim Rev 10(3):5-35, REF*
Nov 1966 49.9 SP16
Cattle, Scours, Virus diseases (animals). Various viruses were involved. english and French summaries.

22633-68
**FOOT-AND-MOUTH DISEASE.**
J B Brooksby
*Pesticides 1(7):38,41,55*
Mar 1968 S0B951.0P43
Cattle, Foot-and-mouth disease, Livestock diseases, Sheep.

22634-68
**COMPARATIVE POTENCY TESTS ON MODIFIED LIVE-VIRUS RABIES VACCINE PRODUCED FROM FLURY HIGH EGG-PASSAGE VIRUS GROWN ON PERMANENT DOG KIDNEY CELL LINE.**
A L Brown E V Davis D L Merry W H Beckenhauer
*Amer J Vet Res 28(124):751-759 REF*
May 1967 41.8 AM3A
Dogs, Laboratory animals, Rabies virus, Tissue culture, Viral vaccines.

22635-68
**CYTOPATHOLOGIC CHANGES AND DEVELOPMENT OF INCLUSION BODIES IN CULTURED CELLS INFECTED WITH BLUETONGUE VIRUS.**
J G Browne M M Jochim
*Amer J Vet Res 28(125):1091-1105 REF*
Jul 1967 41.8 AM3A
Bluetongue virus, Cytology, Electron microscopy, Fluorescent antibody technic, Inclusion bodies, Tissue culture.

22636-68
**PHALARIS STAGGERS NEED NOT BE A BOGEY.**
P W Brownrigg
*S Australia J Agr 70(5):154-158*
Dec 1966 23 SO84
Cattle, Central nervous system, Cobalt, Diagnosis, Livestock diseases, Phalaris tuberosa, Poisonous plants, Sheep.
The symptoms and control methods for the central nervous system disease caused by Phalaris tuberosa in Australian livestock are discussed. Cobalt therapeutic techniques are given.

22637-68
**BESNOITIOSIS AND OTHER SKIN DISEASES OF CATTLE (BOS INDICUS) IN UGANDA.**
O Bwangamoi
*Amer J Vet Res 29(3):737-743 REF*
Mar 1968 41.8 AM3A
Africa, Cattle, Globidiosis, Histology, Skin diseases, Surveys.

22638-68
**TISSUE CULTURE HOG CHOLERA VACCINE. PATENT 3,422,188.**
V J Cabasso
*Us Patent Office Offic Gaz 858(2):602*
14 Jan 1969 156.65 OF2
Hog cholera, Hog cholera vaccines, Patents, Swine, Tissue culture, Virus diseases (animals).

22639-68
**EVIDENCE FOR A METHIONINE-CONTROLLED HOMOSERINE DEHYDROGENASE IN SALMONELLA TYPHIMURIUM.**
R L Cafferata M Freundlich
*J Bacteriol 97(1):193-198 REF*
Jan 1969 448.3 J82
Biosynthesis, Chromatography, Dehydrogenases, Methionine, Salmonella typhimurium.

22640-68
**INFLUENCE OF LITTER SIZE, AGE, VARIATION, AND SELECTIVE BREEDING OF MICE ON SUSCEPTIBILITY TO FOOT-AND-MOUTH DISEASE VIRUS.**
C H Campbell
*Amer J Vet Res 29(3):685-691*
Mar 1968 41.8 AM3A
Animal breeding, Foot-and-mouth disease virus, Genetics, Immunity, Mice.

22641-68
**BOVINE VIRUS DIARRHEA IN ITALY. I. ISOLATION AND CHARACTERIZATION OF THE VIRUS.**
G Castrucci V Cilli G Gagliardi
*Arch Gesamte Virusforsch 24(1-2):48-64 REF*
Jun 1968 448.3 AR23
Bovine virus diarrhea virus, Cattle, Poxviruses, Virus diseases (animals).

22642-68
**THE DYNAMICS OF ANTIBODY AGAINST EIMERIA TENELLA UNDER THE FLUORESCENT MICROSCOPE.**
Z Cerna
*Folia Parasitol 14(1):13-18*
Feb 1967 436.8 C33
Antigens, Chickens, Eimeria tenella, Fluorescent antibody technic.

22643-68
**ULTRASTRUCTURAL OBSERVATIONS ON NEURONS OF THE SYMPATHETIC GANGLIA IN GRASS SICKNESS.**
R L Chandler A Brownlee
*J Comp Pathol 77(3):339-342 REF*
Jul 1967 41.8 J82
Anatomy, Electron microscopes, Grass sickness, Horses, Neurology, Virus diseases (animals).

22644-68
**SPECIFICITY OF THE ANAMNESTIC RESPONSE PRODUCED BY LISTERIA MONOCYTOGENES OR MYCOBACTERIUM TUBERCULOSIS TO CHALLENGE WITH LISTERIA MONOCYTOGENES.**
S Coppel G P Youmans
*J Bacteriol 97(1):127-133 REF*
Jan 1969 448.3 J82
Anamnestic reaction, Immunity, Listeria monocytogenes, Mice, Mycobacterium tuberculosis.

22645-68
**SPECIFICITY OF ACQUIRED RESISTANCE PRODUCED BY IMMUNIZATION WITH LISTERIA MONOCYTOGENES AND LISTERIA FRACTIONS.**
S Coppel G P Youmans
*J Bacteriol 97(1):121-126 REF*
Jan 1969 448.3 J82
Immunity, Listeria monocytogenes, Mice.

22646-68
**RABIES VACCINE AND PROCESS FOR PREPARATION THEREOF. PATENT 3,423,505.**
J F Crawley M K Abelseth
*Us Patent Office Offic Gaz 858(3):962*
21 Jan 1969 156.65 OF2
Chemistry, Patents, Rabies, Vaccines, Virus diseases (animals).

22647-68
**PHARMACOLOGIC PROPERTIES OF A SLOBBER-INDUCING MYCOTOXIN FROM RHIZOCTONIA LEGUMINICOLA.**
M H Crump E B Smalley R E Nichols D P Rainey
*Amer J Vet Res 28(124):865-874*
May 1967 41.8 AM3A
Birds, Mammals, Mycotoxicosis, Pharmacology, Rhizoctonia, Saliva.

22648-68
**STUDIES ON THE SITE OF REPLICATION OF VESICULAR STOMATITIS VIRUS.**
T S David-West N A Labzoffsky
*Arch Gesamte Virusforsch 24(1-2):30-47 REF*
Jun 1968 448.3 AR23
Arboviruses, Cytoplasm, Electron microscopy, Immunochemistry, Reproduction, Synthesis, Tissue culture, Vesicular stomatitis virus.

22649-68
**EFFECTS OF WASHING WITH SALINE SOLUTION AND NORMAL BOVINE PLASMA ON THE INFECTIVITY OF ANAPLASMA MARGINALE IN ERYTHROCYTES.**
H E Davis G T Dimopoullos
*Amer J Vet Res 29(3):763-764*
Mar 1968 41.8 AM3A
Anaplasma marginale, Biochemistry, Cattle, Erythrocytes, Salts, Water.

22650-68
**SCHIZOGONY AND GAMETOGONY OF LEUCOCYTOZOON SIMONDI AND ASSOCIATED REACTIONS IN THE AVIAN HOST.**
S S Desser
*J Protozool 14(2):244-254 REF*
May 1967 439.8 J82
Animal diseases, Ducks, Leucocytozoon disease, Leucocytozoon simondi, Parasitism, Protozoa.

22651-68
**PATHOGENESIS OF THREE STRAINS OF BRUCELLA SUIS IN SWINE.**
B L Deyoe
*Amer J Vet Res 28(125):951-957 REF*
Jul 1967 41.8 AM3A
Bacterial diseases (animals), Bacteriology, Brucella suis, Serological tests, Swine.

22652-68
**EFFECTS OF CHRONIC RESIDENCE ON SIZE AND SIZE DISTRIBUTION OF PLAQUES OF TYPE A FOOT-AND-MOUTH DISEASE VIRUS IN PRIMARY CALF KIDNEY CELL CULTURES.**
E Dougherty H R Seibold R E Patty
*Amer J Vet Res 29(3):693-701 REF*
Mar 1968 41.8 AM3A
Foot-and-mouth disease virus, Immunity, Tissue culture.

22653-68
**STIMULATION OF LEPTOSPIRAL GROWTH BY GLUCOSE.**
H C Ellinghausen
*Amer J Vet Res 29(1):191-199 REF*
Jan 1968 41.8 AM3A
Glucose, Leptospira pomona, Metabolism, Physiology, Proteins.

22654-68
**FLUORESCENT ANTIBODY TECHNIQUE AS A DIAGNOSTIC TEST FOR CANINE DISTEMPER INFECTION: DETECTION OF VIRAL ANTIGEN IN EPITHELIAL TISSUES OF EXPERIMENTALLY INFECTED DOGS.**
G A Fairchild M Wyman E F Donovan
*Amer J Vet Res 287124):761-768 REF*
May 1967 41.8 AM3A
Antigens, Canine distemper virus, Diagnosis, Dogs, Fluorescent antibody technic.

22655-68
RESULTS OF CONTINUOUS LOW-LEVEL INOCULATIONS WITH EIMERIA BOVIS IN CALVES.
P R Fitzgerald
*Amer J Vet Res 28(124):659-665 REF*
May 1967 41.8 AM3A
Cattle, Coccidiosis, Eimeria, Immunization, Injections.

22656-68
DIRECT ASSAY FOR BLUETONGUE VIRUS BY INTRAVASCULAR INOCULATION OF EMBRYONATING CHICKEN EGGS.
N M Foster A J Luedke
*Amer J Vet Res 29(3):749-753 REF*
Mar 1968 41.8 AM3A
Biological assay, Bluetongue virus, Chickens, Eggs, Methodology.

22657-68
SURVIVAL OF FOOT-AND-MOUTH DISEASE VIRUS IN BOVINE HIDES.
P Gailiunas G E Cottral
*Amer J Vet Res 28(125):1047-1053 REF*
Jul 1967 41.8 AM3A
Cattle, Epizootic diseases, Foot-and-mouth disease virus, Hides, Longevity.

22658-68
HISTOCHEMICAL AND ELECTRON MICROSCOPIC STUDIES OF DOG KIDNEY CELLS IN THE EARLY STAGES OF INFECTION WITH INFECTIOUS CANINE HEPATITIS VIRUS.
S P Garg J E Moulton K K Sekhri
*Amer J Vet Res 28(124):725-730 REF*
May 1967 41.8 AM3A
Dogs, Electron microscopy, Histochemistry, Infectious canine hepatitis virus, Tissue culture.

22659-68
ACUTE AND CHRONIC ERYSIPELOTHRIX RHUSIOPATHIAE INFECTION IN RATS.
H D Geissinger
*Zentralbl Vet (SER B)15(3):392-405 REF*
Apr 1968 41.8 Z52
Animal diseases, Bacteria, Blood, Erysipelothrix insidiosa, Heart, Rats, Research. German, French, and Spanish summary.

22660-68
FRACTIONATION AND CHARACTERIZATION OF THE PLASMA AND MESOSOME MEMBRANE OF LISTERIA MONOCYTOGENES.
B K Ghosh R G E Murray
*J Bacteriol 97(1):426-440 REF*
Jan 1969 448.3 J82
Biochemistry, Cytology, Listeria monocytogenes, Plasma membrane.

22661-68
SEROLOGICAL RESPONSE OF PIGS TO INFECTION WITH MYCOPLASMA. DEMONSTRATION OF GROWTH AND METABOLISM-INHIBITING ANTIBODIES IN SERA OF PIGS INOCULATED INTRANASALLY WITH MYCOPLASMA HYORHINIS. II.
M Gois
*Zentralbl Vet (SER B)15(3):382-391 REF*
Apr 1968 41.8 Z52
Animal diseases, Antibodies, Hydrogen-ion concentration, Injections, Metabolism, Mycoplasma hyorhinis, Rabbits, Research, Serological tests, Swine. German, French, and Spanish summary.

22662-68
IMMUNIZATION OF HORSES AGAINST AFRICAN HORSE-SICKNESS WITH ATTENUATED NEUROTROPIC VIRAL STRAINS PROPAGATED IN CHICKEN EMBRYOS.
L Goldsmit
*Amer J Vet Res 29(1):133-141 REF*
Jan 1968 41.8 AM3A
African horse sickness, Horses, Immunization, Neurotropic viruses, Serological tests, Viral vaccines.

22663-68
EXPERIMENTAL TRANSMISSION OF BOVINE MYCOPLASMA IN CALVES AND TURKEYS.
A H Hamdy A L Trapp
*Amer J Vet Res 28(125):1013-1018 REF*
Jul 1967 41.8 AM3A
Cattle, Epizootic diseases, Histochemistry, Mycoplasma, Respiratory diseases, Turkeys.

22664-68
COMPARISON OF THE RESISTANCE OF DIFFERENT-AGED PHEASANTS TO EASTERN ENCEPHALITIS VIRUS FROM DIFFERENT SOURCES.
R P Hanson S Vdlamudi D O Trainer R Anslow
*Amer J Vet Res 29(3):723-727*
Mar 1968 41.8 AM3A
Avian encephalomyelitis, Epizootic diseases, Immunity, Pheasants.

22665-68
ON IMMUNOPRECIPITATION IN SWINE PLAGUE. (GE)
H Hantschel
*Riems Isl Friedrich-loeffler Inst Arb 1131-1145 REF*
53055541.9 R44
Immunity, Livestock diseases, Swine, Swine plague. Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 20 no.5, 1967

22666-68
EXPERIMENTAL PASTEURELLOSIS: COMPARATIVE STUDIES ON PASTEURELLA MULTOCIDA FROM ASIA, AFRICA, AND NORTH AMERICA.
K L Heddleston K R Rhoades P A Rebers
*Amer J Vet Res 28(125):1003-1012 REF*
Jul 1967 41.8 AM3A
Biochemistry, Cattle, Epizootic diseases, Laboratory animals, Pasteurella multocida, Serological tests.

22667-68
HEMAGGLUTININE OF THE ADENOVIRUS 31. (FR)
M Henry R Sohier M F A Du Chatelet
*Acad Sci Compt Rend Ser D Sci Nat 267(22, 2ND SEMESTER):1903-1904*
25 Nov 1968 505 P21
Adenoviruses, Hemagglutination, Serological tests.

22668-68
SOME PROPERTIES OF THE VIRUS OF DUCK PLAGUE.
W R Hess A H Dardiri
*Arch Gesamte Virusforsch 24(1-2):148-153*
Jun 1968 448.3 AR23
Biochemistry, Biophysics, Ducks, Enteritis, Fowl plague, Virus diseases (animals).

22669-68
EFFECT OF ANTIBIOTIC THERAPY ON EXPERIMENTAL LEPTOSPIROSIS INFECTION AND DEVELOPMENT OF ACQUIRED RESISTANCE IN GUINEA PIGS.
W T Hubbert J N Miller
*Amer J Vet Res 28(124):861-864 REF*
May 1967 41.8 AM3A
Drug therapy, Guinea pigs, Immunity, Leptospira icterohaemorrhagiae, Leptospirosis, Penicillin, Streptomycin.

22670-68
ATTEMPTS TO RELEASE THE SCRAPIE AGENT FROM TISSUE DEBRIS.
G D Hunter G C Millson
*J Comp Pathol 77(3):301-307 REF*
Jul 1967 41.8 J82
Scrapie, Tissues, Virus diseases (animals).

22671-68
ENCEPHALITIS IN HORSES IN HILLSBOROUGH COUNTY, FLORIDA, 1964.
W L Jennings R A Kathein A L Lewis J O Bond
*Amer J Vet Res 28(125):965-970 REF*
Jul 1967 41.8 AM3A
Diagnosis, Epizootic diseases, Equine encephalomyelitis, Immunization, Serological tests.

22672-68
MANUFACTURE OF A LIVE CANINE HEPATITIS VACCINE. (CZ)
E Jiran G Petr B Juracka
*Czech Min Zemed Les Hospod Ustav Vedeckotech Inform Vet Med 13(4):225-232 REF*
Apr 1968 41.9 C333
Antibodies, Canine distemper, Canine hepatitis vaccines, Freeze drying, Immunization, Vaccines, Virus diseases (animals). English, Russian, and German

22673-68
ANAPLASMA MARGINALE INFECTION IN YOUNG AND AGED CATTLE.
E W Jones I O Kliewer B B Norman W E Brock
*Amer J Vet Res 29(3):535-544 REF*
Mar 1968 41.8 AM3A
Anaplasma, Cattle, Diagnosis, Serological tests.

22674-68
CRITICAL CONSIDERATIONS ON THE DIAGNOSTIC USEFULNESS OF THE END METHOD FOR THE IN VITRO DETECTION OF THE HOG CHOLERA. (GE
O R Kaaden E Wittmann
*Riems Isl Friedrich-loeffler Inst Arb 1199-1208 REF*
1967 41.9 R44
Diagnosis, Exaltation of Newcastle disease virus test, Hog cholera, Livestock diseases, Swine. Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.5, 1967

22675-68
EFFECTS OF ESTROGENS UPON ANAPLASMA MARGINALE INFECTION IN SPLENECTOMIZED CATTLE.
G Klaus E W Jones I O Kliener
*Amer J Vet Res 28(125):1033-1036 REF*
Jul 1967 41.8 AM3A
Anaplasma, Cattle, Drug therapy, Estrogens, Injections, Spleen.

22676-68
COMPARATIVE FLUORESCENCE-IMMUNOLOGICAL AND CYTOPATHOLOGICAL STUDIES WITH VARIOUS VIRUS STRAINS OF THE MUCOSAL DISEASE OF CATTLE. (GE)
R Kokles D Urbaneck H Liebermann A-f Olechnowitz
*Riems Isl Friedrich-loeffler Inst Arb 1295-1304 REF*
1967 41.9 R44
Cattle, Cytology, Fluorescence, Immunology, Mucosal disease, Research, Virus diseases (animals). Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.5, 1967

22677-68
UTERINE INFECTION IN BOVINE PARATUBERCULOSIS.
K E Kopecky A B Larsen R S Merkal
*Amer J Vet Res 28(125):1043-1045 REF*
Jul 1967 41.8 AM3A
Bacterial diseases (animals), Cattle, Mycobacterium paratuberculosis, Uterus.

22678-68
A CASE OF EPERYTHROZOONOSIS SUIS AND ITS DIFFERENTIAL DIAGNOSTIC SIGNIFICANCE IN RELATION TO SUSPECTED SWINE FEVER. (GE
G Korn M Mussgay
*Zentralbl Vet (SER B)15(6):617-630 REF*
Aug 1968 41.8 Z52
Blood analysis, Diagnosis, Eperythrozoon suis, Eperythrozoonosis, Hog cholera, Livestock diseases, Serological tests, Swine, Temperature. English, French, and Spanish summary.

22679-68
THE FLUORESCENT STAINING COMPLEMENT FOR THE SERODIAGNOSIS OF TOXOPLASMOSIS.

J Kramar
*Folia Parasitol 14(1).5-12 REF*
Feb 1967 436.8 C33
Fluorescent antibody technic, Methodology, Serodiagnosis, Toxoplasmosis.

22680-68
**EFFECT OF DIFFERENT SPECIES OF TRICHOMONADS ON MONKEY KIDNEY CELL CULTURES.**
J Kulda
*Folia Parasitol 14(4).295-310 REF*
Nov 1967 436.8 C33
Biochemistry, Monkeys, Tissue culture, Trichomonas.

22681-68
**STUDIES ON STAPHYLOCOCCOSIS IN CHICKENS. II. PATHOGENICITY OF STAPHYLOCOCCUS AUREUS OF CHICKEN ORIGIN FOR VARIOUS EXPERIMENTAL ANIMALS.**
S Kuramasu Y Imamura Y Tajima
*Zentralbl Vet (SER B)15(6):640-648*
Aug 1968 41.8 Z52
Chick embryos, Chickens, Injections, Laboratory animals, Poultry diseases, Research, Staphylococcus aureus, Xylene. German, French, and Spanish summary.

22682-68
**COMMENTS ON SOME MECHANISMS OF ANTIBODY PRODUCTION IN BOVINE LEPTOSPIROSIS. (FR )**
S Levin Vl Topciu N Gluhovski
*Arch Gesamte Virusforsch 26(2):411-418 REF*
Jun 1967 448.3 AR22
Antibodies, Cattle, Epizootic diseases, Leptospira pomona. Russian, German, and English abstracts

22683-68
**ISOLATION AND IDENTIFICATION OF A FURTHER NEW BOVINE HERPES VIRUS. (GE )**
H Liebermann P Schulze R Kokles H Hantschel
*Riems Isl Friedrich-loeffler Inst Arb 761-776 REF*
1967 41.9 R44
Cattle, Diagnosis, Herpesviruses, Virus diseases (animals). Russian and English summaries reprint:Archive for Experimental Veterinary Medicine vol. 21 no.3, 1967

22684-68
**PSEUDOCOWPOX IN GERMANY. (GE )**
H Liebermann P Schulze H Liehermann
*Riems Isl Friedrich-loeffler Inst Arb 1419-1433 REF*
1967 41.9 R44
Cattle, Pseudocowpox, Virus diseases (animals). Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.6, 1967

22685-68
**THE INFECTION SPECTRUM OF THE STOMATITIS PAPULOSA VIRUS. (GE**
H Liehermann
*Riems Isl Friedrich-loeffler Inst Arb 1337-1352 REF*
1967 41.9 R44
Bovine papular stomatitis virus, Calves, Livestock, Virus diseases (animals). Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.6, 1967

22686-68
**DIFFERENTIAL DIAGNOSIS OF BOVINE STOMATITIS OF VIRAL ORIGIN. (GE**
H Liebermann
*Riems Isl Friedrich-loeffler Inst Arb 1399-1418 REF*
1967 41.9 R44
Cattle, Diagnosis, Stomatitis, Virus diseases (animals). Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.6, 1967

22687-68
**THE SITUATION OF THE AFRICAN SWINE FEVER VIRUS IN VIRAL SYSTEMATICS. (FR )**
A Lucas R Carnero
*Acad Sci Compt Rend Ser D Sci Nat 266(17, 1ST SEMESTER):1800-1801 REF*
22 Apr 1968 505 P21
African swine fever, Biochemistry, Morphology, Physiology, Taxonomy, Viruses.

22688-68
**ISOLATION AND CHARACTERIZATION OF BOVINE ENTERIC VIRUSES.**
M J Van Der Maaten R A Packer
*Amer J Vet Res 28(124):677-684 REF*
May 1967 41.8 AM3A
Abortion, Bovine enteroviruses, Cattle, Serological tests.

22689-68
**EQUINE PIROPLASMOSIS: INDIRECT FLOURESCENT ANTIBODY TEST FOR BABESIA CABALLI.**
P A Madden A A Holbrook
*Amer J Vet Res 29(1):117-123 REF*
Jan 1968 41.8 AM3A
Antibodies, Diagnosis, Fluorescent antibody technic, Horses, Piroplasmosis, Serological tests.

22690-68
**PIGWEED (AMARANTHUS RETROFLEXUS): AN OXALATE-CONTAINING PLANT.**
V L Marshall W B Buck G L Bell
*Amer J Vet Res 28(124):888-889*
May 1967 41.8 AM3A
Amaranthaceae, Oxalates, Poisonous plants, Swine, Toxicology.

22691-68
**REPLICATION OF INFECTIOUS LARYNGOTRACHEITIS VIRUS IN CHICKEN KIDNEY CELL CULTURE.**
V M Mayer F M Hetrick W D Keenum H M DeVolt
*Amer J Vet Res 28(124):825-832 REF*
May 1967 41.8 AM3A
Chickens, Deoxyribonucleic acid, Infectious laryngotracheitis virus, Synthesis, Tissue culture.

22692-68
**STUDIES ON THE DEVELOPMENT OF A LIVE VACCINE AGAINST EQUINE RHINOPNEUMONITIS (ABORTION OF MARES). (GE )**
R Mayr J Pette K Petzold K Wagener
*Zentralbl Vet (SER B)15(3):406-418 REF*
Apr 1968 41.8 Z52
Antibodies, Equine rhinopneumonitis, Hamsters, Horses, Immunity, Immunization, Research, Swine, Vaccines, Virus diseases (animals). English, French, and Spanish summary.

22693-68
**ISOLATION AND IDENTIFICATION OF CLOSTRIDIUM HEMOLYTICUM IN CATTLE IN FLORIDA.**
C S McCain
*Amer J Vet Res 28(124):878-880 REF*
May 1967 41.8 AM3A
Cattle, Clostridium hemolyticum, Diagnosis, Epizootic diseases, Fluorescent antibody technic, Hemoglobinemia, Zoogeography.

22694-68
**EFFICACY OF NAPHTHALOPHOS AND COUMAPHOS AGAINST NEMATODES OF GOATS.**
L R McDougald R G White M F Hansen
*Amer J Vet Res 29(5):1077-1079*
May 1968 41.8 AM3A
Anthelmintics, Coumaphos, Goats, Naphthalophos, Nematodes.

22695-68
**EXPERIMENTALLY INDUCED BOVINE PSOROPTIC ACARIASIS IN A RABBIT.**
W P Meleney
*Amer J Vet Res 28(124):892-894*
May 1967 41.8 AM3A
Acariasis, Cattle, Psoroptes ovis, Rabbits, Sheep.

22696-68
**EXPERIMENTAL PARATUBERCULOSIS IN SHEEP AFTER ORAL, INTRATRACHEAL, OR INTRAVENOUS INOCULATION: HISTOCHEMICAL LOCALIZATION OF HYDROLASE ACTIVITIES.**
R S Merkal J P Kluge W S Monlux A B Larsen K E Kopecky L Y Quinn R P Lehmann
*Amer J Vet Res 29(5):985-994*
May 1968 41.8 AM3A
Histochemistry, Hydrolases, Injections, Mycobacterium paratuberculosis, Sheep.

22697-68
**EXPERIMENTAL PARATUBERCULOSIS IN SHEEP AFTER ORAL, INTRATRACHEAL, OR INTRAVENOUS INOCULATION: SEROLOGIC AND INTRADERMAL TESTS.**
R S Merkal A B Larsen K E Kopecky J P Kluge W S Monlux R P Lehmann L Y Quinn
*Amer J Vet Res 29(5):963-969 REF*
May 1968 41.8 AM3A
Diagnosis, Injections, Mycobacterium paratuberculosis, Precipitin test, Serological tests, Sheep.

22698-68
**EXPERIMENTAL PARATUBERCULOSIS IN SHEEP AFTER ORAL, INTRATRACHEAL, OR INTRAVENOUS INOCULATION: HISTOCHEMICAL LOCALIZATION OF DEHYDROGENASE ACTIVITIES.**
R S Merkal W S Monlux J P Kluge A B Larsen K E Kopecky L Y Quinn R P Lehmann
*Amer J Vet Res 29(5):971-982 REF*
May 1968 41.8 AM3A
Dehydrogenases, Histochemistry, Injections, Mycobacterium paratuberculosis, Sheep.

22699-68
**INVESTIGATIONS ON AN AVIAN ADENOVIRUS. (GE )**
G Monreal
*Zentralbl Vet (SER B)15(6):685-716*
Aug 1968 41.8 Z52
Adenoviruses, Adsorption, Cells, Chickens, Dna viruses, Morphology, Nucleic acids, Reproduction, Research, Virus diseases (animals).

22700-68
**EFFECT OF TOXIN IN BOVINE MYCOPLASMAL MASTITIS.**
A H Mosher W N Plastridge M E Tourtellotte C F Helmholdt
*Amer J Vet Res 29(3):517-522 REF*
Mar 1968 41.8 AM3A
Allergies, Cattle, Cytopathology, Mastitis, Mycoplasma, Tissue culture, Toxins.

22701-68
**METHOD OF COMBATTING HERPES VIRUS WITH 5-NITROURACIL. PATENT 3,423,508.**
Y K S Murthy E Testa
*Us Patent Office Offic Gaz 858(3):962*
21 Jan 1969 156.65 OF2
Herpesviruses, Nitrouracil, 5-, Patents, Virus diseases (animals).

22702-68
**SUSCEPTIBILITY OF TISSUE CULTURE CELLS TO FOOT-AND-MOUTH DISEASE VIRUS: CONCENTRATION OF BOVINE SERUM IN CULTURE MEDIUM.**
R E Patty E Dougherty
*Amer J Vet Res 28(124):647-651*
May 1967 41.8 AM3A
Blood serum, Foot-and-mouth disease virus, Host relationships, Tissue culture.

22703-68
**CYTOPATHOLOGIC CHANGES OF LYMPHATIC TISSUES OF CATTLE WITH THE BOVINE VIRUS DIARRHEA-MUCOSAL DISEASE COMPLEX.**
C P Peter J R Duncan D E Tyler F K Ramsey
*Amer J Vet Res 29(5):939-948 REF*
May 1968 41.8 AM3A

Bovine virus diarrhea virus, Cattle, Cytology, Electron microscopy, Lymph, Mucosal disease.

**22704-68**
**SUSCEPTIBILITY OF CULTURED MAMMALIAN CELLS TO INFECTION WITH VIRULENT AND MODIFIED HOG CHOLERA VIRUSES.**
E C Pirtle A J Kniazeff
*Amer J Vet Res 29(5):1033-1040 REF*
May 1968 41.8 AM3A
Fluorescent antibody technic, Hog cholera virus, Mammals, Tissue culture.

**22705-68**
**CYTOGENETIC ALTERATIONS IN SWINE KIDNEY CELLS PERSISTENTLY INFECTED WITH HOG CHOLERA VIRUS AND PROPAGATED WITH AND WITHOUT ANTISERUM IN THE MEDIUM.**
E C Pirtle L K Woods
*Amer J Vet Res 29(1):153-164 REF*
Jan 1968 41.8 AM3A
Antigens, Chromosomes, Cytogenetics, Hog cholera virus.

**22706-68**
**ISOLATION OF LISTERIA MONOCYTOGENES FROM BRAINS OF RABIESNEGATIVE ANIMALS.**
B Pittman W B Cherry
*Amer J Vet Res 28(124):779-785 MAP REF*
May 1967 41.8 AM3A
Epizootic diseases, Fluorescent antibody technic, Listeria monocytogenes, Rabies virus.

**22707-68**
**PATHOGENESIS OF COLIFORM MASTITIS IN CATTLE. II. A COMPARISON OF MORPHOLOGICAL FINDINGS IN COLIFORM MASTITIS IN CATTLE AND IN THE EXPERIMENTALLY INDUCED ARTHUS PHENOMENON IN THE MAMMARY GLANDS OF RABBITS.**
Z Pospisil E Salajka
*Zentralbl Vet (SER B)15(6):631-639 REF*
Aug 1968 41.8 Z52
Aerobacter aerogenes, Cattle, Escherichia coli, Livestock diseases, Mammary glands, Mastitis, Morphology, Rabbits. German, French, and Spanish summary.

**22708-68**
**ENTERO-TOXAEMIA OF SHEEP AND LAMBS.**
M F Pulsford
*S Australia J Agr 70(3):89-95*
Oct 1966 23 SO84
Clostridium, Enterotoxemia, Immunization, Methodology, Sheep.

**22709-68**
**INFLUENCE OF TEMPERATURE ON THE TOXICITY OF DIFFERENT ISOLATES OF ASPERGILLUS WENTII WEHM.**
C J Rabie M Terblanche
*S Afr J Agr Sci 10(1):263-266*
Mar 1967 24 SU3
Aspergillus, Biochemistry, Ducks, Temperature, Toxicology, Toxins.

**22710-68**
**IMMUNOLOGIC RESPONSE OF FOWL TO MYCOPLASMA GALLISEPTICUM AND ITS RELATIONSHIP TO LATENT INFECTION.**
D H Roberts O M Olesiuk H Van Roekel
*Amer J Vet Res 28(125):1135-1152 REF*
Jul 1967 41.8 AM3A
Immunization, Mycoplasma gallisepticum, Poultry, Serological tests.

**22711-68**
**PROBLEMS OF BOVINE LEUCOSIS. (GE )**
H Roehrer
*Riems Isl Friedrich-loeffler Inst Arb 1-8*
1967 41.9 R44
Cattle, Leukosis, Livestock diseases. English summary reprint: German Veterinary Weekly, vol. 74, no.2, Jan. 15, 1967, Hannover, West Germany

**22712-68**
**INTERFERON PRODUCTION WITH STRAIN SF-4 OF PARAINFLUENZA-3 VIRUS.**
B D Rosenquist R W Loan
*Amer J Vet Res 28(124):619-628 REF*
May 1967 41.8 AM3A
Cattle, Interferon, Parainfluenza-3 virus, Swine, Tissue culture.

**22713-68**
**EXPERIMENTAL STREPTOCOCCUS AGALACTIAE MASTITIS IN CATTLE: ATTEMPTS TO SUPERIMPOSE THE ORGANISM IN LACTATING GLANDS HARBORING UNRELATED BACTERIAL INFECTIONS AND IN GLANDS WITH EXPERIMENTALLY INDUCED STERILE INFLAMMATION.**
O W Schalm J Lasmanis E J Carroll
*Amer J Vet Res 28(124):685-695 REF*
May 1967 41.8 AM3A
Cattle, Injections, Mammary glands, Mastitis, Streptococcus agalactiae.

**22714-68**
**EXPERIMENTAL PSEUDOMONAS AERUGINOSA MASTITIS IN CATTLE.**
O W Schalm J Lasmanis E J Carroll
*Amer J Vet Res 28(124):697-707 REF*
May 1967 41.8 AM3A
Cattle, Injections, Mastitis, Pseudomonas aeruginosa.

**22715-68**
**EXPERIMENTAL CONTRIBUTIONS TO THE KNOWLEDGE OF DERMATITIS PUSTULOSA OF SHEEP. VII. INVESTIGATIONS INTO THE PROCESSES IN THE LOW TEMPERATURE COMPLEMENT BINDING REACTION WITH DERMATITIS PUSTULOSA ANTIGEN. (GE )**
D Schmidt
*Riems Isl Friedrich-loeffler Inst Arb 969-980 REF*
1967 41.9 R44
Antigens, Complement fixation, Research, Sheep, Sore mouth, Temperature, Virus diseases (animals). Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.4, 1967

**22716-68**
**EXPERIMENTAL CONTRIBUTIONS TO THE KNOWLEDGE OF DERMATITIS PUSTULOSA OF SHEEP. VI. THE SPECIFICITY OF THE COMPLEMENT BINDING REACTION WITH DERMATITIS PUSTULOSA ANTIGEN. (GE )**
D Schmidt
*Riems Isl Friedrich-loeffler Inst Arb 947-967 REF*
1967 41.9 R44
Antigens, Complement fixation, Sheep, Sore mouth, Virus diseases (animals). Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.4, 1967

**22717-68**
**EXPERIMENTAL CONTRIBUTIONS TO THE KNOWLEDGE OF DERMATITIS PUSTULOSA OF SHEEP. V. INVESTIGATIONS INTO THE DEVELOPMENT OF IMMUNITY TO THE VIRUS OF DERMATITIS PUSTULOSA AT VARIOUS PLACES OF THE SURFACE OF THE BODY. (GE )**
D Schmidt
*Riems Isl Friedrich-loeffler Inst Arb 937-945 REF*
1967 41.9 R44
Immunity, Research, Sheep, Skin, Sore mouth, Virus diseases (animals). Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.4, 1967

**22718-68**
**EXPERIMENTAL CONTRIBUTIONS TO THE KNOWLEDGE OF DERMATITIS PUSTULOSA OF SHEEP. IV.0CULTIVATING THE DERMATITIS PUSTULOSA VIRUS IN A TISSUE CULTURE. (GE )**
D Schmidt
*Riems Isl Friedrich-loeffler Inst Arb 701-711*
1967 41.9 R44
Sheep, Sore mouth, Tissue culture, Virus diseases (animals). Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.3, 1967

**22719-68**
**EXPERIMENTAL CONTRIBUTIONS TO THE KNOWLEDGE OF DERMATITIS PUSTULOSA OF SHEEP.II.0THE BEHAVIOR OF THE COMPLEMENT FIXATION AND OF THE INFECTIOUS ANTIGEN AT VARIOUS PH LEVELS. (GE )**
D Schmidt
*Riems Isl Friedrich-loeffler Inst Arb 181-190 REF*
1967 41.9 R44
Antigens, Complement fixation, Sheep, Sore mouth, Virus diseases (animals). Reprint: Archive for Experimental Veterinary Medicine vol. 21

**22720-68**
**EXPERIMENTAL CONTRIBUTIONS TO THE KNOWLEDGE OF DERMATITIS PUSTULOSA OF SHEEP. I.EXPERIMENTS CONCERNING THE PURIFICATION OF THE DERMATITIS PUSTULOSA VIRUS AND THE ISOLATION OF THE COMPLEMENT FIXATION ANTIGEN FROM THE ELEMENTARY BODIES. (GE**
D Schmidt
*Riems Isl Friedrich-loeffler Inst Arb 175-180 REF*
1967 41.9 R44
Antigens, Complement fixation, Dermatitis, Sheep, Sore mouth, Virus diseases (animals). Reprint: Archive for Experimental Veterinary Medicine vol. 21

**22721-68**
**LIGHT AND ELECTRON MICROSCOPIC EXAMINATIONS OF A NEW BOVINE HERPES VIRUS. (GE )**
P Schulze H Liebermann H Hantschel A Bartha M Juhasz
*Riems Isl Friedrich-loeffler Inst Arb 747-759 REF*
1967 41.9 R44
Cattle, Electron microscopes, Herpesviruses, Microscopy, Virus diseases (animals). Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.3, 1967

**22722-68**
**ELECTRON MICROSCOPIC STUDIES ON THE LYMPH NODE OF THE PIG. (GE**
P Schulze
*Riems Isl Friedrich-loeffler Inst Arb 301-306*
1967 41.9 R44
Cytoplasm, Electron microscopes, Livestock diseases, Lymphatic system, Research, Swine. Reprint: Morphological Yearbook, Leipzig, East Germany vol. 111 no.2, 1967

**22723-68**
**REACTIONS OF SHEEP TO CELL-CULTURE-MODIFIED FOOT-AND-MOUTH DISEASE VIRUS.**
H R Seibold E Dougherty
*Amer J Vet Res 28(125):1079-1083*
Jul 1967 41.8 AM3A
Foot-and-mouth disease virus, Immunization, Laboratory animals, Sheep, Tissue culture.

**22724-68**
**PHYSICO-CHEMICAL PROPERTIES OF AVIAN REOVIRUS AND ITS NUCLEIC ACID.**
K Sekiguchi F Koide H Kawamura
*Arch Gesamte Virusforsch 24(1-2):123-136 REF*
Jun 1968 448.3 AR23
Biochemistry, Biophysics, Chickens, Nucleic acids, Reoviruses, Tissue culture.

**22725-68**
**CHARACTERIZATION OF THE MALARIA PIGMENT (HEMOZOIN) FROM THE AVIAN MALARIA PARASITE PLASMODIUM LOPHURAE.**
I W Sherman I P Ting J A Ruble
*J Protozool 15(1):158-164 REF*
Feb 1968 439.8 J82
Animal diseases, Avian malaria, Plasmodium, Poultry, Properties.

22726-68
FURTHER STUDIES ON THE ERYSIPELOTHRIX INSIDIOSA TUBE AGGLUTINATION TEST.
D Sikes T J Tumlin
*Amer J Vet Res 28(125):1177-1181 REF*
Jul 1967 41.8 AM3A
Agglutination, Diagnosis, Erysipelothrix insidiosa, Swine, Turkeys.

22727-68
A NOTE ON THE APPLICATION OF THE CONGLUTINATING COMPLEMENT ABSORPTION TEST FOR THE DETECTION OF RINDERPEST ANTIBODIES.
G Singh T S Gulrajani
*Cur Sci 37(7):203-204*
05 Apr 1968 475 SC123
Antibodies, Complement, Rinderpest, Serodiagnosis, Serological tests.

22728-68
IMMUNISATION WITH STAPHYLOCOCCAL CELL WALLS AGAINST MASTITIS.
L Singleton G W Ross R A Stedman K V Chanter
*J Comp Pathol 77(3):279-291 REF*
Jul 1967 41.8 J82
Cell wall, Goats, Immunization, Livestock diseases, Mastitis, Staphylococcus.

22729-68
SOME STUDIES ON PIGEON POX VIRUS IN TISSUE CULTURE.
I M H Sokkar H El-Dahaby A H El-Sabbagh
*J Vet Sci U A R 4(1):91-96*
1967 S0F604.0J6
Methodology, Pigeonpox virus, Tissue culture.

22730-68
FOWL POX--A COSTLY DISEASE CHEAPLY PREVENTED.
K J Staples
*S Australia J Agr 70(4):132-134*
Nov 1966 23 SO84
Fowlpox vaccines, Fowlpox virus, Immunization, Poultry diseases, Virus diseases (animals).

22731-68
PATHOLOGY OF PNEUMONIA IN INTENSIVELY-REARED CALVES.
R G Stevenson
*J Comp Pathol 77(3):263-269 REF*
Jul 1967 41.8 J82
Beef cattle, Livestock diseases, Morphology, Pneumonia.

22732-68
HYDATIDS LIMITATION PROGRAMME--TESTING RESULTS.
*Tasmanian J Agr 38(2):138*
May 1967 23 T182T
Dogs, Echinococcosis, Surveys.

22733-68
FLUORESCENT ANTIBODY STUDIES OF VIBRIO FETUS: STAINING CHARACTERISTICS IN SEMEN, PREPUTIAL EXUDATE, AND PURE CULTURE.
L K Taul A L Kleckner
*Amer J Vet Res 29(3):711-715 REF*
Mar 1968 41.8 AM3A
Cattle, Fluorescent antibody technic, Methodology, Semen, Serological tests, Vibrio.

22734-68
A TOXIC FUNGUS (SCLEROTIUM ROLFSII) ISOLATED FROM GROUNDNUTS.
M Terblanche C J Rabie
*S Afr J Agr Sci 10(1):253-262 REF*
Mar 1967 24 SU3
Corn, Livestock, Mycotoxicosis, Peanuts, Sclerotium rolfsii.

22735-68
SEROLOGICAL INVESTIGATIONS CONCERNING THE INCIDENCE OF LEPTOSPIRAL INFECTION AMONG THE PERSONNEL EMPLOYED IN THE CARE OF ANIMALS IN SOME ZOOTECHNICAL FARMS. (FR )
Vl Topciu S Levin J Dragan I Radu
*Arch Gesamte Virusforsch 26(2):309-318 REF*
Jun 1967 448.3 AR22
Antibodies, Epidemiology, Leptospira, Occupational diseases, Serological tests. Russian, German, and English abstracts

22736-68
SKIN NECROSES IN PIGS CAUSED BY GR VIREX. (GE )
D Urbaneck A Heinig
*Riems Isl Friedrich-loeffler Inst Arh 1-5*
1967 41.9 R44
Antiseptics, Calcium hydroxide, Livestock diseases, Necrosis, Skin, Sodium carbonate, Swine. Russian and English summaries reprint: Monthly Journal for Veterinary Medicine, Jena, East Germany vol. 22 no.9, 1967

22737-68
TWO MORPHOLOGICALLY DIFFERENT TYPES OF LYMPHOCYTES IN CATTLE. (GE )
D Urbaneck
*Riems Isl Friedrich-loeffler Inst Arh 795-800 REF*
1967 41.9 R44
Cattle, Livestock diseases, Lymphocytes, Lymphocytosis, Morphology. Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.3, 1967

22738-68
THE BEHAVIOR OF MACRONUCLEOLAR AND POLYNUCLEOLAR LYMPHOCYTES IN BOVINE LEUKOSIS. (GE )
D Urbaneck W Wittmann
*Riems Isl Friedrich-loeffler Inst Arh 1469-1476 REF*
1967 41.9 R44
Cattle, Leukosis, Livestock diseases, Lymphatic system, Lymphocytes. Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.6, 1967

22739-68
CLINICAL AND PATHOLOGICAL ASPECTS OF HOG CHOLERA IN GRIEVING PHYSICALLY SUB-STANDARD PIGS. (GE )
D Urbaneck R Kokles D Schmidt E Wittmann H Bergmann
*Riems Isl Friedrich-loeffler Inst Arh 1443-1459 REF*
1967 41.9 R44
Hog cholera, Livestock diseases, Swine. Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.6, 1967

22740-68
OCULAR TOXOPLASMOSIS IN CATS.
S J Vainisi L H Campbell
*Amer Vet Med Ass J 154(2):141-152 REF*
15 Jan 1969 41.8 AM3
Cats, Histology, Retina, Serological tests, Toxoplasmosis.

22741-68
EFFECT OF LYSOGENICITY ON THE VIRULENCE OF BACILLUS ANTHRACIS.
T Vera L C Grumbles T E Franklin P F Jungerman
*Amer J Vet Res 29(5):1059-1066 REF*
May 1968 41.8 AM3A
Bacillus anthracis, Bacteriophages, Mice, Mortality.

22742-68
ELECTRON-MICROSCOPIC FINDINGS IN THE LINGUAL MUCOSA OF HEALTHY AND FOOT-AND-MOUTH DISEASED CATTLE. (GE )
W Vetterlein
*Riems Isl Friedrich-loeffler Inst Arh 731-746 REF*
1967 41.9 R44
Cattle, Electron microscopes, Foot-and-mouth disease, Mucous membrane, Tongue, Virus diseases (animals). Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no. 3, 1967

22743-68
STUDY OF SHEEPPOX VIRUS SYNTHESIS BY FLUORESCENT ANTIBODY TECHNIQUE.
J D Vigario F P Ferraz
*Amer J Vet Res 28(124):809-813 REF*
May 1967 41.8 AM3A
Fluorescent antibody technic, Sheep, Sheeppox virus, Synthesis, Tissue culture.

22744-68
AVIAN LEUKOSIS FROM THE POINT OF VIEW OF AVIAN VIRAL TUMORS.
K Vogel
*Riems Isl Friedrich-loeffler Inst Arh 1-72*
1967 41.9 R44
Avian leukosis complex, Neoplasms, Poultry, Virus diseases (animals). English summary copy of Progress Reports for Agriculture vol. 5 no.9, 1967 p.4-71

22745-68
ON THE QUESTION OF LATENT VIRUS INFECTIONS IN WILD-LIVING SMALL MAMMALS (INSECTIVORES AND RODENTS). SECOND COMMUNICATION: ISOLATION OF MURINE ENCEPHALOMYELITIS VIRUSES. (GE )
S Wagner R Kokles W Wittmann
*Riems Isl Friedrich-loeffler Inst Arh 1037-1047 REF*
1967 41.9 R44
Encephalomyelitis, Insectivora, Mammals, Rodents, Virus diseases (animals), Wildlife. Russian and English summaries reprint: Archive for Experimental Veterinary Medicine vol. 21 no.4, 1967

22746-68
BLOOD TRANSFUSIONS DURING PATENT BOVINE ANAPLASMOSIS.
E I Williams E W Jones
*Amer J Vet Res 29(3):703-710 REF*
Mar 1968 41.8 AM3A
Anaplasmosis, Blood transfusions, Cattle, Immunity, Serological tests.

22747-68
STUDIES ON THE PROBLEMS ASSOCIATED WITH THE ACTIVATION OF LATENT OR INAPPARENT SALMONELLOSES BY MEANS OF VACCINATION AS WELL AS ON THE POSSIBILITY OF SIMULTANEOUS VACCINATION AGAINST SALMONELLOSIS AND SWINE FEVER. (GE )
E Wittmann D Schmidt H Bergmann
*Riems Isl Friedrich-loeffler Inst Arh 1-11 REF*
1967 41.9 R44
Hog cholera, Immunization, Livestock diseases, Parasitism, Research, Salmonellosis, Swine. Russian and English summaries reprint: Monthly Journal for Veterinary Medicine, Jena, East Germany vol. 22 no.5, 1967

22748-68
FURTHER INVESTIGATIONS OF THE QUESTION OF LATENT RABIES INFECTION IN FOXES. (GE )
W Wittmann R Kokles
*Riems Isl Friedrich-loeffler Inst Arh 165-173 REF*
1967 41.9 R44
Antigens, Foxes, Immunity, Rabies, Research, Virus diseases (animals). Reprint: Archive for Experimental Veterinary Medicine vol. 21

22749-68
ROUTES OF ELIMINATION OF ERYSIPELOTHRIX INSIDIOSA FROM INFECTED SWINE.
R L Wood
*Amer J Vet Res 28(125):925-936 REF*
Jul 1967 41.8 AM3A
Bacterial diseases (animals), Erysipelothrix insidiosa, Injections, Swine.

22750-68
EXPERIMENTAL INFECTIOUS CANINE HEPATITIS. V. THE EFFECT OF RETICULOENDOTHELIAL BLOCKADE.
N G Wright

*J Comp Pathol 77(3):331-337*
Jul 1967 41.8 J82
Animal diseases, Cortisone, Dogs, Guinea pigs, Infectious canine hepatitis, Reticuloendothelial system, Temperature.

**22751-68**
**ELECTRON MICROSCOPIC STUDIES ON VESICULAR EXANTHEMA OF SWINE VIRUS: INTRACYTOPLASMIC VIRAL CRYSTAL FORMATION IN CULTURED PIG KIDNEY CELLS.**
Y C Zee A J Hackett S H Madin
*Amer J Vet Res 29(5):1025-1032 REF*
May 1968 41.8 AM3A
Cytology, Electron microscopy, Swine, Tissue culture, Vesicular exanthema virus (swine).

## ARTHROPODS

**22752-68**
**STABILIZATION OF AQUEOUS SOLUTIONS OF THE INSECT CHEMOSTERILANT M-XYLOHYDROQUINONE (M-XHQ) BY VITAMIN C.**
K R S Ascher N Avdat
*Experientia 23(8):679-680 REF*
15 Aug 1967 475 EX7
Ascorbic acid, Chemical control (insects), Chemosterilants, Hydroquinone, Musca domestica.

**22753-68**
**THREE NEW SPECIES OF BIRD MITES (ANALGOIDAE) PARASITES OF PROCELLARIIFORMES. (FR )**
V Cerny
*Folia Parasitol 14(1):87-91*
Feb 1967 436.8 C33
Acarina, Birds, Insect taxonomy, Parasitic mites. English abstract

**22754-68**
**TICK PARALYSIS IN CALIFORNIA LIVESTOCK.**
E C Loomis R B Bushnell
*Amer J Vet Res 29(5):1089-1093 MAP REF*
May 1968 41.8 AM3A
California, Dermacentor occidentalis, Livestock diseases, Tick paralysis.

**22755-68**
**TICKS (IXODOIDEA) OF DOMESTIC ANIMALS IN IRAQ; SPRING AND EARLY SUMMER INFESTATIONS IN THE LIWAS OF BAGHDAD, KUT, AMARA, AND BASRA.**
J Robson J M Robb
*J Med Entomol 4(3):289-293*
10 Aug 1967 421 J828
Insect dissemination, Insect identification, Ixodides, Livestock, Meteorology, Surveys.

## PARASITES

**22756-68**
**EXPERIMENTAL INFECTIONS OF OSTERTAGIA OSTERTAGI IN CALVES: RESULTS OF TWO REGIMENS OF MULTIPLE INNOCULATIONS.**
N Anderson J Armour W F H Jarrett F W Jennings J S D Ritchie
*Amer J Vet Res 28(125):1073-1077*
Jul 1967 41.8 AM3A
Biochemistry, Cattle, Injections, Ostertagia.

**22757-68**
**PARASITIC NEMATODES OF BIRDS OF THE ORDER COLYMBIFORMES IN CZECHOSLOVAKIA.**
V Barus D Zajicek
*Folia Parasitol 14(1):73-85 REF*
Feb 1967 436.8 C33
Birds, Nematodes, Taxonomy.

**22758-68**
**THE RELATION BETWEEN THE LIVER RESERVES OF VITAMIN A AND SOME INTESTINAL PARASITES IN DOKKI 4 CHICKS. (B). IN CHICKS INFESTED WITH ASCARIDIA GALLI.**
A A Bassiouni I A El Hatw M A El Ezz
*J Vet Sci U A R 4(1):43-47*
1967 S0F604.0J6
Ascaridae, Chickens, Liver, Parasitism, Sanitation, Vitamin a.

**22759-68**
**STANDARDIZED CHEMOTHERAPEUTICAL TESTS FOR IMMATURE AND MATURE FASCIOLA HEPATICA INFECTIONS IN SHEEP.**
J C Boray F A Happich
*Australian Vet J 44(2):72-78 REF*
Feb 1968 41.8 AU72
Anthelmintics, Carbon tetrachloride, Drug therapy, Fasciola, Livestock diseases, Sheep.

**22760-68**
**LEPTOSPIROSIS IN WILD ANIMALS. THE ISOLATION OF A STRAIN OF LEPTOSPIRA CANICOLA FROM AN ARMADILLO (CHAETOPHRACTUS VILLOSUS). (SP )**
R A Cacchione E S Cascelli E S Martinez J M Zueberbuhler
*Argent Repub Inst Nac Zoonosis Ser Tec (N s)36:51-55*
1966 41.9 AR36
Antibodies, Leptospira canicola, Leptospira icterohaemorrhagiae, Leptospirosis, Wildlife. English summary

**22761-68**
**THE EFFECTS OF EXPERIMENTAL MICROASCARIDIC INFECTIONS BY ASCARIS SUUM IN GUINEA PIGS SUBJECTED TO TOTAL BODY X- IRRADIATION LD 50/30. (IT )**
L Casarosa G Macchioni V Favati A Marconcini
*Arch Vet Ital 18(6):455-470 REF*
31 Dec 1967 41.8 AR25
Ascaris lumbricoides suum, Dosage, Guinea pigs, Irradiation, Larvae, Parasitology, Tables (data), X-rays. English, French, German summary.

**22762-68**
**RECENT TECHNIQUES FOR THE SERODIAGNOSIS OF HUMAN AND ANIMAL HYDATIDOSIS. III. EVIDENCE OF INDIRECT HEMAGGLUTINATION (HAI). (sp )**
J G Castro
*Rev Iberica Parasitol 28(2,APR-JUN):189-249*
Jun 1968 436.8 R32
Echinococcosis, Hemagglutination-inhibition test, Methodology, Serodiagnosis.

**22763-68**
**THE NUMBER OF AELUROSTRONGYLUS ABSTRUSES LARVAE REQUIRED TO PRODUCE PULMONARY DISEASE IN THE CAT.**
J M Hamilton
*J Comp Pathol 77(3):343-346*
Jul 1967 41.8 J82
Aelurostrongylus abstrusus, Cats, Heart, Larvae, Parasitism, Verminous bronchitis.

**22764-68**
**A STABLE PHOSPHORUS COMPOUND IN THE BODY-WALL MUSCLE OF ASCARIS LUMBRICOIDES.**
J Kubistova D Seth L Mikulikova
*Folia Parasitol 14(2):97-105 REF*
May 1967 436.8 C33
Ascaris lumbricoides, Muscles, Phosphorus compounds.

**22765-68**
**PROPHYLACTIC THERAPY AGAINST THE DEVELOPING STAGES OF DIROFILARIA IMMITIS: SUPPLEMENTAL STUDIES.**
S Kume I Ohishi S Kobayashi
*Amer J Vet Res 28(125):975-978*
Jul 1967 41.8 AM3A
Diethylcarbamazine, Dirofilaria immitis, Dogs, Drug therapy.

**22766-68**
**STUDIES ON EIMERIA MIVATI IN CHICKENS AND A COMPARISON WITH EIMERIA ACERVULINA.**
P L Long
*J Comp Pathol 77(3):315-325 REF*
Jul 1967 41.8 J82
Chickens, Coccidiosis, Eimeria acervulina, Eimeria mivati, Parasitism, Research.

**22767-68**
**INVESTIGATIONS CONCERNING THE IMMUNOBIOLOGICAL DIAGNOSIS OF HELMINTHIASIS BY MEANS OF SIMULTANEOUS INTRADERMAL TESTS WITH SEVERAL DIFFERENT PARASITE ANTIGENS. (FR )**
Gh Lupaseo D Panaiteseo A Haeig P Solomon J Tintareanu
*Arch Gesamte Virusforsch 26(2):279-284 REF*
Jun 1967 448.3 AR22
Antigens, Cysticercus, Fasciola, Helminthiasis, Immunodiagnosis, Skin tests, Trichinella spiralis. Russian, German, and English abstracts

**22768-68**
**CONTROLLED TEST OF ANTHELMINTIC ACTIVITY OF TRICHLORFON AND THIABENDAZOLE IN LAMBS, WITH OBSERVATIONS ON OESTRUS OVIS.**
E T Lyons J H Drudge F W Knapp
*Amer J Vet Res 28(125):1111-1116 REF*
Jul 1967 41.8 AM3A
Drug therapy, Lambs, Oestrus ovis, Thiazolyl)-benzimidizole, 2-(4-, Trichlorfon.

**22769-68**
**SHAPE DEVIATIONS IN EGGS OF ASCARIS LUMBRICOIDES.**
H Lysek
*Folia Parasitol 14(4):381-383*
Nov 1967 436.8 C33
Animal morphology, Ascaris lumbricoides, Eggs, Histology.

**22770-68**
**BIRD ECTOPARASITES FROM SOUTH FARALLON ISLAND, CALIFORNIA.**
A G Marshall B C Nelson
*J Med Entomol 4(3):335-338 REF*
10 Aug 1967 421 J828
Birds, Insect dissemination, Parasitism, Research.

**22771-68**
**CONTROL OF COCCIDIOSIS IN POULTRY. PATENT 3,422,200.**
E F Rogers R L Clark
*Us Patent Office Offic Gaz 858(2):604*
14 Jan 1969 156.65 OF2
Anthelmintics, Coccidiosis, Livestock diseases, Patents, Poultry.

**22772-68**
**EFFECT OF THE LEVO FORM OF TETRAMISOLE ON OSTERTAGIA, TRICHOSTRONGYLUS, AND COOPERIA IN CATTLE.**
R Rubin C P Hibler
*Amer J Vet Res 29(3):545-548*
Mar 1968 41.8 AM3A
Anthelmintics, Biochemistry, Cattle, Chemical control (nematodes), Cooperia, Ostertagia, Trichostrongylidae.

**22773-68**
**ROUND WORMS IN PIGS.**
A F Ryan
*Tasmanian J Agr 38(4):277-280*
Nov 1967 23 T182T
Anthelmintics, Ascaris lumbricoides, Piperazine, Swine.

The life cycle of Ascaris lumbricoides and the pathology of infested lung and liver tissue of swine are discussed. Piperazine compounds are recommended for safe and effective treatment.

22774-68
ACTIVE IMMUNITY AGAINST TRICHOSTRONGYLUS AXEI IN SHEEP AND RABBITS.
P K Sinha
*Amer J Vet Res 28(124):793-798 REF*
May 1967 41.8 AM3A
Immunity, Irradiation, Rabbits, Sheep, Trichostrongylidae.

22775-68
CONTRIBUTION TO THE HISTOCHEMISTRY OF THE CUTICLE AND CUTICULAR STRUCTURES OF TREMATODES.
J Slais Z Zdarska
*Folia Parasitol 14(4):311-318 REF*
Nov 1967 436.8 C33
Cuticle, Echinostoma, Fasciola hepatica, Histochemistry.

22776-68
THE LOCATION OF THE PARASITES IN MUSCLE CYSTICERCOSIS.
J Slais
*Folia Parasitol 14(3):217-223 REF*
Sep 1967 436.8 C33
Cattle, Cysticercus, Muscles, Parasitism, Swine.

22777-68
HEMATOLOGIC CHANGES AND CLINICAL SIGNS OF TRICHINOSIS IN PIGS.
A C Strafuss W J Zimmermann
*Amer J Vet Res 28(124):833-838 REF*
May 1967 41.8 AM3A
Diagnosis, Eosinophils, Swine, Trichinella spiralis, Trichinosis.

22778-68
INFECTIVITY OF ANAPLASMA MARGINALE IN BOVINE BLOOD AFTER PROLONGED FREEZING.
W A Summers
*Amer J Vet Res 28(124):880-882*
May 1967 41.8 AM3A
Anaplasma, Blood, Cattle, Deer, Freezing, Glycerol, Mortality.

22779-68
INVESTIGATION OF THE HELMINTHOFAUNA OF BEASTS OF PREY. (CZ )
J Tomanek
*Czech Min Zemed Les Hospod Ustav Vedeckotech Inform Vet Med 13(4):253-257 REF*
Apr 1968 41.9 C333
Animals, Cestoda, Helminthiasis, Livestock, Nematodes, Research, Trichinella, Wildlife. English and Russian and German summary.

22780-68
COMPARATIVE EVIDENCE WITH DICHLORVOS AND DERIVATIVES OF PIPERAZINE IN THE ASCARIDOSIS OF THE PIG. (SP )
J M T Vilas
*Rev Iberica Parasitol 28(2,APR-JUN):171-176*
Jun 1968 436.8 R32
Anthelmintics, Ascaris, Dichlorvos, Piperazine, Swine. English abstract

22781-68
EFFECT OF TEMPERATURE AND CULTURAL METHODS ON DEVELOPMENT OF THE FREE-LIVING STAGES OF TRICHOSTRONGYLUS COLUBRIFORMIS.
G T Wang
*Amer J Vet Res 28(125):1085-1090 REF*
Jul 1967 41.8 AM3A
Culture media, Eggs, Larvae, Temperature, Trichostrongylidae.

22782-68
SURVIVAL OF INFECTIVE LARVAE OF THE CATTLE NEMATODES, COOPERIA PUNCTATA, TRICHOSTRONGYLUS AXEI, AND OESOPHAGOSTOMUM RADIATUM.
J C Williams R L Mayhew
*Amer J Vet Res 28(124):629-640*
May 1967 41.8 AM3A
Cattle, Cooperia punctata, Larvae, Mortality, Oesophagostomum, Soil surveys, Trichostrongylidae.

# COMMODITY PROTECTION

## STORAGE DISEASES

22783-68
SOME STORAGE DISEASES OF FRUITS.
M P Srivastava R N Tandon
*Cur Sci 37(10):292*
20 May 1968 475 SCI23
Anthracnose, Fruit, Scab, Storage diseases.

Symptoms and insect vectors of the following fruit storage diseases are discussed: Anthracnose, Aspergillus rot, and scab.

## ARTHROPODS

22784-68
FUMIGANTS IN INDIA.
B K Desai
*Pesticides 1(9):19-21*
May 1968 S0B951.0P43
Cotton, Fumigants, Peanuts, Stored products.

22785-68
TERMITE CONTROL MEASURES IN BUILDING CONSTRUCTION.
J George
*Pesticides 1(8):13-14*
Apr 1968 S0B951.0P43
Aldrin, Benzene hexachloride, Buildings, Chlordane, Chlorinated hydrocarbons, Dieldrin, DDT, Heptachlor, Insect control, Insecticides, Soil sanitation, Termite-proofing.

22786-68
INSECTS COST US MONEY.
F B Pearson
*S Australia J Agr 70(4):143*
Nov 1966 23 SO84
Chemical control (insects), Costs, Insect pests, Storage diseases, Stored products, Wheat.

Economic losses caused by insects in Australian grain storage and marketing are discussed.

22787-68
MITES AS HOUSE VERMIN AND STORAGE PESTS IN NORTHWEST GERMANY. (GE )
G Rack
*Hamburg Zool Staatsinst Zool Mus Entomol Mitt 3(62):1-19 REF*
15 Nov 1968 421 H17
Catalogs, Mites, Stored products.

## RODENTS AND OTHER PESTS

22788-68
SYMPTOMS AND CHARACTERISTICS OF PRATYLENCHUS BRACHYURUS INFESTATION ON STORED POTATOES.
H Koen W L Hogewind
*S Afr J Agr Sci 10(2):543-550*
Jun 1967 24 SU3
Cold storage, Potatoes, Pratylenchus, Storage diseases.

## MICROBIAL CONTAMINATION

22789-68
ISOLATION OF SALMONELLA FROM NORTHERN TERRITORY CATTLE.
J M Bruce B Hart
*Australian Vet J 44(2):80*
Feb 1968 41.8 AU72
Food contamination, Salmonella, Slaughterhouses.

# ENVIRONMENTAL CONTAMINATION

22790-68
PERSISTENCE OF HERBICIDES IN PONDED WATER AND SOILS.
P A Frank R D Comes E B Hollingsworth
*Weed Soc Amer Abstr 1966 MEETING:88*
1966 241 W41
D, 2,4-, Dichlobenil, Fenac, Herbicide residues, Paraquat, Ponds, Soil contamination, Water pollution.

22791-68
EFFECTS OF SOIL APPLIED TRIFLURALIN ON FISH PRODUCTION IN POOLS.
J M Lawrence
*Weed Soc Amer Abstr 1966 MEETING:89-90*
1966 241 W41
Aquatic weeds, Dosage, Fish, Herbicides, Plant physiology, Reproduction, Soils, Trifluralin.

22792-68
FIELD INVESTIGATIONS OF CLAIMS AGAINST HERBICIDES.
P Marvin
*1966 MEETING:78*
1966
Cattle, D, 2,4-, Herbicide residues, Plant injuries, Poisoning, Poisonous plants. About half the claims of herbicidal damage are erroneous.

22793-68
PERSISTANCE OF TRIFLURALIN IN SOIL.
L R Oliver R E Frans
*Weed Soc Amer Abstr 1966 MEETING:3*
1966 241 W41
Biological assay, Herbicides, Loam, Soil contamination, Sorghum, Trifluralin.

## RESIDUES

22794-68
STUDIES ON PESTICIDE RESIDUES. 2. CARBARYL RESIDUES IN THE BODY TISSUES AND MILK OF CATTLE FOLLOWING DERMAL APPLICATION.
I S Aurwood
*Queensland J Agr Anim Sci 24(1):69-74 REF*
Mar 1967 23 Q37
Carbaryl, Cattle, Chemical analysis, Insecticide residues, Milk.

22795-68
METHYL PARATHION ADSORBED ON THE SKIN AND BLOOD CHOLINESTERASE LEVELS OF PERSONS CHECKING COTTON TREATED WITH ULTRALOW-VOLUME SPRAYS.
S J Nemec P L Adkisson H W Dorough
*J Econ Entomol 61(6):1740-1742*
16 Dec 1968 421 J822
Adsorption, Blood analysis, Cholinesterases, Cotton, Insecticide residues, Methyl parathion, Skin, Spraying, Toxicology.

22796-68
PENETRATION AND ACCUMULATION OF FENURON IN FOREST SOILS.
R D Shipman
*66(12):910-912*
Dec 1968
Biological assay, Fenuron, Forest soils, Herbicide residues, Oats, Soil texture.

22797-68
PESTICIDE RESIDUES IN DIARY PRODUCE.
*Tasmanian J Agr 38(4):318-319*
Nov 1967 23 T182T

Dairy products, DDT, Food contamination, Insecticide residues, Lindane, Pastures, Pest control.

## TOXICOLOGY

**22798-68**
**CONTROL OF THE ACTION OF CHEMICAL MOLLUSCICIDES ON ZOOPHYTIC ASSOCIATIONS IN FRESH WATER. (FR )**
R Deschiens
*Acad Sci Compt Rend Ser D Sci Nat 266(18, 1ST SEMESTER):1860-1861*
29 Apr 1968 505 P21
Algae, Aquatic animals, Molluscacides, Pesticide residues, Toxicity.

**22799-68**
**THE INFLUENCE OF BEE VENOM ON THE OSMOTIC FRAGILITY OF YOUNG RABBIT RBC.**
I Hort
*Cur Sci 37(10):271-274 REF*
20 May 1968 475 SCI23
Bee venom, Erythrocytes, Hemolysis, Rabbits.

**22800-68**
**ACTION OF DDT ON THE PERIPHERAL NERVOUS SYSTEM OF THE GRASS FROG RANA PIPIENS.**
P A Isaacson
*Cur Sci 37(18):530-531*
20 Sep 1968 475 SCI23
DDT, Frogs, Nervous system, Toxicology.

**22801-68**
**INVESTIGATION OF THE TOXICITY OF FUNGICIDAL AEROSOLS TO LATE BLIGHT (PHYTOPHTORA INFESTANS (MONT.)DE BARY) UNDER LABORATORY CONDITIONS. (CZ )**
V Koula
*Czech Min Zemed Statnim Ustav Vedeckotech Inform Ved Pr 11:187-196 REF*
1967 19.5 C3332
Aerosols, Biochemistry, Biological laboratories, Fungicides, Phytophthora infestans, Research, Toxicology. English, German, and Russian summary.

**22802-68**
**PESTICIDES USE AND HEALTH HAZARDS.**
P R Mehta
*Pesticides 1(6):15-22*
Feb 1968 S0B951.0P43
Accident prevention, Pesticides, Puhlic health, Safety education.

**22803-68**
**ON REPRODUCTION STUDIES AND THE OCCURRENCE OF CATARACTS IN RATS AFTER LONG-TERM FEEDING OF THE INSECTICIDE HEPTACHLOR.**
M Mestitzova
*Experientia 23(1):42-43*
15 Jan 1967 475 EX7
Cataracts, Heptachlor, Rats, Reproduction, Toxicology.

## PLANT PHYSIOLOGY & BIOCHEMISTRY

**22804-68**
**EFFECT OF SEVERAL HERBICIDES ON THE PROTEOLYTIC ACTIVITY IN SQUASH.**
F M Ashton D Penner
*Weed Soc Amer Abstr 1966 MEETING:48*
1966 241 W41
Atrazine, Dicamba, Dichlobenil, Enzymes, Fenac, Herbicides, Isopropyl N-(3-chlorophenyl)carbamate, Monuron, Picloram, Plant biochemistry, Winter squash.

**22805-68**
**THE INFLUENCE OF ROOTED AQUATIC PLANTS ON THE DISSOLVED OXYGEN CONTENT OF WATER.**
P G Beasley J M Lawrence
*Weed Soc Amer Abstr 1966 MEETING:90*
1966 241 W41
Aquatic weeds, Eichhornia crassipes, Fish, Nitella, Oxygen, Plant water relations, Potamogeton crispus, Temperature, Water.

**22806-68**
**SURFACTANT TOXICITY TO PLANT TISSUES.**
G A Buchanan D W Staniforth
*Weed Soc Amer Abstr 1966 MEETING:44-45*
1966 241 W41
Beets, Biological assay, Cells, Corn, Elodea, Plant physiology, Plants, Roots, Seed germination, Soybeans, Surface-active agents, Tissues.

**22807-68**
**THE ACTION OF SEVERAL INHIBITORS ON THE RESPIRATION OF PLANT TISSUES TREATED WITH GIBBERELLIC ACID. (FR )**
D Courtrez
*Bruxelles Univ Phys Veg Ann 13(3):53-81 REF*
1968 451 B833
Gibberellic acid, Plant biochemistry, Plant regulators, Plant respiration, Potatoes.

**22808-68**
**DODDER:POTENTIAL RESEARCH TOOL.**
J H Dawson
*Weed Soc Amer Abstr 1966 MEETING:35*
1966 241 W41
Bromacil, Cuscuta, Diuron, Ethyl N,N-dipropylthiolcarbamate, Herbicides, Plant biochemistry, Research, Simazine, Trifluralin.

**22809-68**
**PLANT INSECTICIDES.**
B V Deshpande
*Pesticides 1(8):11-12*
Apr 1968 S0B951.0P43
Insecticidal plants, Insecticides, Plant extracts.

**22810-68**
**INTERACTIONS BETWEEN ATRAZINE RESIDUE AND FOUR HERBICIDES: AMIBEN, CDAA, LINURON, AND TRIFLURALIN.**
W G Espinoza R S Adams R W Behrens
*Weed Soc Amer Abstr 1966 MEETING:53-54*
1966 241 W41
Amiben, Atrazine, Chloro-N,N-diallylacetamide, 2-, Herbicide residues, Herbicides, Humidity, Light, Linuron, Plant physiology, Soybeans, Temperature, Trifluralin.

**22811-68**
**USE OF LABORATORY EVALUATIONS FOR AQUATIC HERBICIDES AND ALGICIDES.**
G P Fitzgerald R P Howmiller
*Weed Soc Amer Abstr 1966 MEETING:91*
1966 241 W41
Algae, Algicides, Aquatic weeds, Biological assay, Chelation, Chemical control (weeds), Copper, Detergents, Fish, Herbicides, Lemna minor, Plant physiology.

**22812-68**
**PRODUCTION OF ETHYLENE BY SWEET POTATO ROOTS INFECTED BY BLACK ROT FUNGUS.**
H Imaseki T Teranishi I Uritani
*Plant Cell Physiol 9(4):769-781 REF*
Dec 1968 450 P699
Black rot, Ceratocystis, Ethylene, Fungus diseases (plants), Roots, Sweet potatoes.

**22813-68**
**SITES OF INCORPORATION OF TRITIUM URIDINE IN THE PARENCHYMA CELLS OF HEALTHY LEAVES AND LEAVES INFECTED WITH YELLOW MOSAIC TURNIP VIRUS, OF BRASSICA CHINESIS. (FR )**
D Lafleche J M Bove
*Acad Sci Compt Rend Ser D Sci Nat 266(18, 1ST SEMESTER):1839-1841*
29 Apr 1968 505 P21
Autoradiography, Chinese cahbage, Cytology, Electron microscopy, Isotopes, Uridine, Yellow mosaic (turnips).

**22814-68**
**METHOD FOR MODIFYING THE GROWTH CHARACTERISTICS OF PLANTS. PATENT 3,421,881.**
J K Leasure D R Mussell
*Us Patent Office Offic Gaz 858(2):546*
14 Jan 1969 156.65 OF2
Biochemistry, Patents, Plant physiology, Plant regulators.

**22815-68**
**PARTITIONING AND DISTRIBUTION OF HERBICIDES IN SPINACH CHLOROPLASTS.**
T J Monaco D E Moreland
*Weed Soc Amer Abstr 1966 MEETING:46*
1966 241 W41
Chloroplasts, Herbicides, Hill reaction, Plant biochemistry, Plant translocation, Prometryne, Propanil, Simazine, Spinach.

**22816-68**
**PARTITIONING AND DISTRIBUTION OF HERBICIDES IN SPINACH CHLOROPLASTS.**
T J Monaco D E Moreland
*Weed Soc Amer Abstr 1966 MEETING:33*
1966 241 W41
Chloroplasts, Herbicides, Hill reaction, Photochemistry, Plant biochemistry, Prometryne, Propanil, Simazine, Spinach.

**22817-68**
**INHIBITION OF THE HILL REACTION OF ISOLATED CHLOROPLASTS BY AMIDE-CONTAINING HERBICIDES.**
D E Moreland T J Monaco
*Weed Soc Amer Abstr 1966 MEETING:33,45*
1966 241 W41
Amides, Chloroplasts, Colorimetry, Herbicides, Hill reaction, Peas, Plant biochemistry.

**22818-68**
**EFFECT OF SUCROSE, AUXINS AND GIBBERELLIC ACID ON ROOTING OF STEM SEGEMNTS OF POPULUS NIGRA UNDER VARYING LIGHT CONDITIONS.**
K K Nanda A N Purohit K Mehrotra
*Plant Cell Physiol 9(4):735-743 REF*
Dec 1968 450 P699
Gihberellic acid, Light, Plant hormones, Populus nigra, Roots, Sucrose.

**22819-68**
**UTILIZATION OF 14C METABOLITES, INCORPORATION OF 32P AND CHANGES IN RESPIRATION OCCURRING IN LEAVES FROM DALAPON TREATED BEANS.**
M A Ross
*Weed Soc Amer Abstr 1966 MEETING:50*
1966 241 W41
Adenosine triphosphates, Autoradiography, Beans, Biochemistry, Carbon isotopes, Chromatography, Dalapon, Herbicides, Leaves, Metabolites, Phosphorus isotopes, Photosynthesis, Plant physiology, Plant respiration, Radioactive tracers.

**22820-68**
**TRANSLOCATION OF HERBICIDES IN AMERICAN PONDWEED (POTAMOGETON NODOSUS POIR.).**
D E Seaman T M Thomas
*Weed Soc Amer Abstr 1966 MEETING:65*
1966 241 W41
Autoradiography, Carbon isotopes, Elodea canadensis, Herbicides, Metabolites, Photosynthesis, Plant biochemistry, Plant translocation, Potamogeton nodosus, Radioactive tracers, Surface-active agents.

**22821-68**
**C02:02 RATIOS IN RELATION TO WEED SEED GERMINATION.**

G D Scllls D W Staniforth
*Weed Soc Amer Abstr 1966 MEETING:59*
1966 241 W41
Carbon dioxide, Oxygen, Polygonum pensylvanicum, Seed dormancy, Seed germination, Setaria fabcrii, Setaria lutescens, Setaria viridis, Soil profiles, Tcmperature, Wceds.

22822-68
**THE INFLUENCE OF VOLATILE 2,4-D UPON ZINNIAS, SNAPDRAGONS, AND OTHER BEDDING PLANTS AS AFFECTED BY OTHER GASES SUCH AS SO2 AND NH3.**
C H Shcrwood E L Denisen
*1966 MEETING:68*
1966
Ammonia, Antirrhinum, D, 2,4-, Gascs, Ornamental plants, Plant biochemistry, Plant injuries, Sulfur dioxide.

22823-68
**PENETRATION AND DISTRIBUTION STUDIES IN BEAN, COTTON AND BARLEY FROM FOLIAR AND ROOT APPLICATIONS OF TWEEN 20-C14 (FATTY ACID AND OXYETHYLENE LABELED).**
L W Smith C L Foy
*Weed Soc Amer Abstr 1966 MEETING:64*
1966 241 W41
Barley, Beans, Carbon isotopes, Chromatography, Cotton, Foliar application, Plant translocation, Roots, Surface-active agents.

22824-68
**EFFECTS OF AFTER-RIPENING AND GIBBERELLIC ACID ON THE THERMOINDUCTION OF SEED GERMINATION IN SOLANUM MELONGENA.**
Y Suzuki N Takahashi
*Plant Cell Physiol 9(4):653-660 REF*
Dec 1968 450 P699
Eggplant, Gibberellic acid, Sceed germination, Tcmperaturc.

22825-68
**ISOLATION AND SOME PHYSIOLOGICAL PROPERTIES OF NATURAL PLANT GROWTH INHIBITORS.**
R Turetskaya V Kcfeli M Kutacek K Vackova N Tschumakovski
*Biol Plant 10(3):205-221 REF*
May 1968 450 B52
Cabbagc, Corn, Peas, Plant biochemistry, Plant growth inhibitors, Salix.

22826-68
**TRANSLOCATION AND PERSISTENCE OF DICAMBA IN CANADA THISTLE, TARTARY BUCKWHEAT, QUACKGRASS AND KENTUCKY BLUEGRASS.**
W H Vandendorn
*Weed Soc Amer Abstr 1966 MEETING:62*
1966 241 W41
Agropyron repens, Carbon isotopes, Chemical control (weeds), Chromatography, Cirsium arvense, Dcfoliation, Dicamba, Dosagc, Fagopyrum tataricum, Pesticide application, Plant biochemistry, Plant physiology, Plant translocation, Poa pratensis, Radioactive tracers.

22827-68
**HERBICIDE PERSISTENCE WITH DIFFERENT INCORPORATORS.**
A F Wiese
*Weed Soc Amer Abstr 1966 MEETING:52*
1966 241 W41
Amaranthus rctroflexus, Atrazine, Chcmical control (weeds), Diuron, Dosagc, Herbicide rcsiducs, Norea, Pesticide application, Prometrync, Propazine, Soil sanitation, Trifluralin, Wheat.

## CHEMISTRY

22828-68
**BIS-SULFONYL DIHALOMETHANES AS FUNGICIDES AND BACTERICIDES. PATENT 3,426,138.**
D R Baker
*Us Patent Office Offic Gaz 859(1):282*
04 Feb 1969 156.65 OF2
Bactericides, Chemistry, Fungicides, Halogen compounds, Patents, Sulfonic acid compounds.

22829-68
**TRIAZINES. PATENT 3,423,409.**
H M Blatter
*Us Patent Office Offic Gaz 858(3):946*
21 Jan 1969 156.65 OF2
Chcmistry, Patents, Triazines.

22830-68
**ADSORPTION OF HERBICIDES TO PROTEINS.**
N D Camper D E Moreland
*Weed Soc Amer Abstr 1966 MEETING:32,46*
1966 241 W41
Adsorption, Chemistry, Chlorine, D, 2,4-, Diuron, Herbicides, Protcins, Trichlorobenzoic acid, 2,3,6-.

22831-68
**FUNGICIDAL COMPOSITIONS CONTAINING COPPER BIS-DIMETHYL ACRYLATE. PATENT 3,426,132.**
H Frcnsch
*Us Patent Office Offic Gaz 859(1):281*
04 Fcb 1969 156.65 OF2
Chemistry, Copper bis(dimethyl) acrylatc, Fungicides, Patcnts.

22832-68
**PROCESS OF KILLING FUNGI, BACTERIA OR NEMATODES. PATENT 3,422,197.**
K R Molt I Hcchcnblcikner
*Us Patent Office Offic Gaz 858(2):604*
14 Jan 1969 156.65 OF2
Bacteria, Chemistry, Fungi, Nematodes, Patents, Pcsticides.

22833-68
**WATER DISPERSIBLE POWDERED PESTICIDE CONCENTRATES. PATENT 3,421,882.**
E P Ordas
*Us Patent Office Offic Gaz 858(2):546*
14 Jan 1969 156.65 OF2
Chemistry, Patents, Pesticides, Watcr.

22834-68
**NEW HERBICIDES ANALYZED AT THE INSTITUTO BIOLOGICO DURING THE YEARS OF 1966, 1967 AND 1968. (POR )**
J R Piedade L Leiderman
*Biologico 34(9):209-211*
Sep 1968 442.8 B529
Chemical analysis, Herbicides. English abstract

22835-68
**ACARICIDAL COMPOSITION CONTAINING N-SUBSTITUTED AND UNSUBSTITUTED ALKYL AND ALKENYL-2-DIMETHYLAMINOBENZHYDRYLCARBAMATES. PATENT 3,422,199.**
S B Richter D P Mayer
*Us Patent Office Offic Gaz 858(2):604*
14 Jan 1969 156.65 OF2
Acaricides, Carbamates, Chcmistry, Nitrogen, Patents, Pcsticides.

22836-68
**PESTICIDAL PREPARATIONS AND COMPOUNDS. PATENT 3,423,470.**
O Rohr A Hubele
*Us Patent Office Offic Gaz 858(3):956*
21 Jan 1969 156.65 OF2
Chcmistry, Patents, Pcsticidcs.

22837-68
**PESTICIDAL PREPARATION AND METHOD OF USE. PATENT 3,421,883.**
O Rohr
*Us Patent Office Offic Gaz 858(2):546-547*
14 Jan 1969 156.65 OF2
Chemistry, Patents, Pesticide application, Pesticides.

## ENGINEERING

22838-68
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